UNITED STATES BANKRUPTCY COURT

SOUTHERN DISTRICT OF NEW YORK

Case No. 08-13555-scc

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In the Matter of:

LEHMAN BROTHERS HOLDINGS INC.,

Debtor.

- x

U.S. Bankruptcy Court

One Bowling Green

New York, NY 10004

February 15, 2017

9:38 AM

B E F O R E :

HON SHELLEY C. CHAPMAN

U.S. BANKRUPTCY JUDGE

ECRO: KAREN / RACHEL

Hearing re: Trial on Lehman's Objection to Claims of QVT (Doc # 17468 Debtors' One Hundred Fifty-Fifth Omnibus Objection to Claims)

Transcribed by: Sonya Ledanski Hyde

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ALSO PRESENT TELEPHONICALLY:

PATRICK MOHAN

P R O C E E D I N G S

THE COURT: Good morning. How are you?

MR. PFLEIDERER: Good morning.

THE COURT: Would you raise your right hand, please.

Do you solemnly swear or affirm that all the testimony you're about to give before the Court shall be the truth, the whole truth and nothing but the truth?

MR. PFLEIDERER: I do swear.

THE COURT: Very good. Have a seat, make yourself comfortable.

MR. PFLEIDERER: Thank you.

THE COURT: If you need a break at any time, just let us know. You don't have to wait for one of the lawyers to ask for a break.

MR. PFLEIDERER: Thank you.

THE COURT: All right? Thank you.

VOIR DIRE EXAMINATION

BY MR. TRACEY:

Q Good morning. Would you state your name, please?

A My name -- excuse me, my name is Paul Pfleiderer.

Q And what is your current occupation, Mr. Pfleiderer?

A I am currently a professor of finance at the Graduate School of Business at Stanford University.

Q Would you -- I'd like to take you back through your

educational background, if you don't mind. Would you tell us where you went to college and what degrees you graduated with?

A Yes. I got a bachelor's degree at Yale College in economics. And then one year later I came back and spent another four years at Yale getting a PhD in economics.

Q And what positions of employment have you had since you completed your education?

A My -- my resume is actually quite simple. I just got a job as an assistant professor at Stanford and have been there ever since.

Q Okay. Have you had different positions at Stanford?

A Yes, I have. I was initially appointed as an assistant professor and then I think it was about four years later I was promoted to an associate professor, and then associate professor with tenure and then full professor and then chaired professor. It's a normal progression if you stay someplace for a long time.

Q Do you have a book of exhibits in front of you?

A Yes, I do.

Q Okay. I'd like to ask you to take a look at CX-1689. Is that the simple CV you just referred to?

A Yes, it is.

Q Okay. In addition to your position as a professor of finance, do you have any leaderships at the university?

A Yes, I do. For the last 3 1/2 years I've been -- I was appointed to be a senior associate dean in the business school, which entails having responsibility, in my case, for the PhD program, administering that, and for basically overseeing about half of the faculty in three different groups in the business school, about 60 faculty members.

Q And how long have you been teaching finance?

A Starting as an assistant professor, it would be 30 -- let's see, 35 years.

Q And during that time could you give us a sense of what subjects you've taught?

A So I've taught -- taught a wide variety of courses on various different levels. I've taught introductory finance to MBAs, I just finished teaching to -- a program that we have called our MSX Loan program, which is for mid-level career executives. And in that course I cover a lot of topics in asset pricing, derivatives, option pricing and how it relates to various things, including corporate finance. So I've taught that on those levels.

I've also taught asset pricing in various ways, to PhD students. I've taught courses on private equity and venture capital and general investment management over the years. And I recently taught courses on entrepreneurship finance and -- and venture capital finance to various groups, including in a few weeks I'll be teaching, in this

case remotely, to a program that we have in Ghana where we are trying to help small, medium enterprise managers scale their businesses.
Q And your teaching experience includes teaching MBA students?
A Yes, very much so, that -- that's been the bulk of it.
Q And in addition, PhD students?
A PhD students and -- and a number of executives as well, on various -- various programs. For quite a few years I taught a course of options and derivatives for executives.
Q And what types of students do you have in those programs?
A These are high level -- tend to be high level senior executives understanding how options and derivatives, in this case, could be used in a corporate setting, how they're priced.
Q Have you published any academic papers on the subjects of trading or derivatives?
A Yes, primarily on trading, determinants of bid-ask spreads, volume, how information gets into prices, how dealers end up having to price whatever they're trading in. So that's been the bulk of my research.
Q If you could turn to Claimant's Exhibit 1689 and identify some of the writings that you published in the area of trading?

A So the series of papers, starting about half way down Page -- I guess this would be the second page, A Theory of Intraday Trading Patterns: Volume and Price Variability; Selling and Trading on Information in Financial Markets; Divide and Conquer: A Theory of Intraday and Day-of-the-Week Mean Effects; Sunshine Trading and Financial Market Equilibrium; Trading on Information in Financial Markets; Trading Volume, those would be, at least a number of papers that jump off the page that fit into that category.
Q Thank you. Have you ever testified as an expert witness before?
A Yes, quite a few times; several times in trial and then a host of times in -- in deposition in various stages where it did not end up in a trial.
Q And have you testified as an expert witness on -- in the area of valuation?
A Yes, quite a few times. As a matter of fact, I would guess that probably three-quarters of the time involved issues in valuation, probably in almost every case there were issues in valuation, but in at least three-quarters of the cases I would think that valuation was -- was central to some of the issues.
Q And I'd like to just take you through some of those cases. Could you perhaps give us some examples of cases in which you have testified on valuation issues? What's the

first one?

A   Well, confining the list to those where I testified at trial, the first time I believe I testified at trial was in a case involving FIRREA. In this particular case, the issue was the valuation of what it would cost to replace supervisory goodwill.

So the history is that when the savings and loan crisis occurred, it turned out that of course a lot of the savings and loans had to be rescued and oftentimes a basically solvent savings and loan would acquire another savings and loan. But if you're acquiring something that's underwater you have to be given something in return. So at that time something called supervisory goodwill was given, where you would basically have additional capital on the books that would allow you to -- to benefit from that.

And FIRREA was passed by Congress and took away that supervisory goodwill and the Supreme Court, as I understand it and recall, ruled that that was a taking and so those savings and loans were able to go to the Federal Court of Claims and sue the U.S. Government for the value of that takings. And so the whole issue was on what the cost of replacing that supervisory goodwill would be. And my testimony was related to what it would cost to replace that, given that they would have to do so in a way that didn't incur any risk, because they didn't have any risk before.

Q And was your testimony accepted as an expert witness?
A Yes, it was.
Q In what subject?
A I don't recall precisely, but I believe it was in financial valuation, but I'm not sure that that was exactly the term that was used.
Q And what was the next case?
A The next case, chronologically, I believe is testifying in this courthouse with a bankruptcy case involving Iridium and Motorola. Iridium as the satellite company that went bankrupt and at issue there was a question of the company's solvency over a period of three years where the Committee of Unsecured Creditors were attempting to clawback, from Motorola, who was the prime contractor, a number of payments that was made over that period of time. So the whole question was whether Iridium was solvent over that long period.
And I testified that there was ample market evidence, on the basis of investors putting money in at various stages, banks, bondholders, equityholders, to indicate that the company was solvent over that period of time.
Q And did you say that was in the bankruptcy court?
A Yes. Yes, it was.
Q And was your testimony accepted as an expert witness?

A Yes, it was.

Q What was the next case?

A Again, to the best of my recollection, I think the next case I testified at trial was quite a different setting. It was a jury trial, in federal district court in Charleston, South Carolina. And I was testifying for the Department of Justice. And this was a case involving I think it's proper to call it a tax scam where if I, for instance, wanted to participate in this scam, which of course I wouldn't, but if I wanted to do so and I had stock that had a very low basis and had appreciated a lot, I would pay a huge capital gain on that if I were to sell it. And so what the perpetrators of this tax scam were doing was allowing me to take out a loan against that stock, with that stock as collateral. And it was a nonrecourse loan, and they would basically give me 90 percent of the value of that stock.

And I had the right, if I did that, to come back and repurchase the -- the -- the stock by paying off the loan. And so effectively what that company had given was -- was an option to me to buy the stock back at that price. And so the whole business economics of this required valuing that derivative claim, that -- that option. And what I showed was that the valuation of those options was way less than the ten percent that they were collecting. So it wasn't -- it was a scam, it wasn't a viable -- a viable

business.
Q And in that case was your testimony accepted as an expert witness?
A Yes, it was.
Q And was that -- what was the subject matter, if you recall?
A Well, I would believe that it was -- and this is just -- I don't -- I don't recall exactly what the wording was, but I believe, again, financial economics, valuation of -- it may have been valuation of that derivative claim that was embedded in there. I'm not sure.
Q And what was the next case in which you testified as an expert witness?
A Then the next case brought me back to this -- this courtroom, I don't know if it was this courtroom, but this building, and that was in this -- this matter where the Committee -- the estate was suing -- I don't know if that's the right word, but was attempting to get money back from Barclays. Barclays had acquired the broker-dealer and the question was whether Barclays had gotten a windfall gain -- gain in terms of the consideration that was paid by Barclays in it assuming some liabilities, versus the value of the trading portfolio that was -- was acquired.
Q And were there financial instruments involved in that case?

A Yes. A huge -- a huge number. As I recall, and I'm not sure exactly the number, but I think it was 12 -- 12,000 CUSIPs. And some of those were -- were -- were quite easy to value, some of them were equities, there were a lot of asset-backed RMBS, ABS, but then there were a fairly large amount, not necessarily number, but a fairly large value that was in what were called Level 3 assets that were very difficult to value. I don't remember the particulars, but I know that there was one, I think it was a CLO, that was quite huge for which there was no trading.

It was a similar situation to, I think, some of the issues here in the sense that it was carried on Lehman's books, but there weren't -- it -- there wasn't a market in it, so it was -- it was difficult to value.

Q And what was the nature of your testimony in that case?

A So I was asked to review the accounting for that, for all those -- those CUSIPs. I certainly didn't look at each one individually, but to look at the processes that had been done. And one of the key issues, which again I think resonates with some of what is arising in this matter, is that those had to be marked at basically a bid. So the requirement, as I understand it, was that if you have, for marketing purposes -- the accounting requirements required to market it and bid what you -- what you could sell it for, so as I recall some of the issues related to the -- to the

mid-bid adjustment.

So I -- I reviewed the general -- the general processes. Again, just from a view of the financial economics underlying that, I wasn't testifying as an accountant. And -- and that was, I believe, factored into -- into the review of the case.

Q And was your testimony accepted as an expert in that case?

A Yes, it was.

Q And on what subject?

A Again I believe it was financial economics and financial valuation or financial economics and valuation.

Q Have you ever been a trader of derivative securities?

A No, I've not.

Q Have you ever been a trader at all?

A No, I have not.

Q Are you an expert in the ISDA close-out process?

A I am not.

Q And do you have a law degree?

A I do not.

Q So turning to this case, would you describe what you've been asked to do in respect to this case?

A Yes. I was asked to review the methodologies that were employed by QVT and their implementation to basically ask whether they were reasonable given principles of economics

and financial economics.
Q And have you reached an opinion as to whether those methodologies were reasonable in their principles of financial economics?
A Yes. Yes, I have.
Q And did you do your own valuation of the positions between Lehman and QVT?
A No. I didn't take that as part of my assignment. My assignment is to just review whether the actual methodologies that had been used were -- were reasonable.
Q And in evaluating those methodologies, what standards did you apply?
A I applied the standards of what I understand based on principles of economics and -- and finance, which include considering how risk is priced and liquidity in the market and such things, to see whether, I guess probably the best way to put it, is whether there were any violations of those -- those principles that were inherent in their methodologies or in the way they were applied.
Q And was your valuation based on generally accepted principles and methods in the area of financial economics?
A Yes, it was.
Q And did you apply those principles and methods in a manner that's generally accepted in the area of financial economics?

MR. TAMBE: Objection. Objection to both --

THE COURT: Mr. Tambe?

MR. TAMBE: -- foundation and leading. Objection to foundation and leading. The phrase that's being used is generally accepted in the area of financial economics. It doesn't sound like GAAP to me. Is there -- what is the standard that's being referred to here with the --

THE COURT: Well maybe you could --

MR. TAMBE: -- witness's agreement --

THE COURT: -- flesh out those words.

MR. TRACEY: Sure.

THE COURT: What was the terminology again, Mr. Tracey?

MR. TRACEY: Generally accepted principles of --

THE COURT: Generally accepted principles and methods?

MR. TRACEY: -- and methods of financial economics.

Q Did you apply, in reviewing your -- in reviewing the material that you reviewed in connection with this case, did you apply principles of financial economics?

A Yes, I did.

Q And where did you develop the principles of financial economics from?

A Well, I'm not --
Q What's the source?
A I should be careful here, I don't believe I developed those principles, I've contributed a little bit to the body of knowledge, but most of that body of knowledge has been created over a long period of time. So the -- the body of knowledge that I would refer to are the basic principles of how risk is basically priced in a market, what determines bid-ask spreads and various things of that sort. So there's a -- there's a body of academic research that is both theoretical and empirical that I'm drawing upon, starting with things I learned as a PhD student and obviously over the last 30 -- 30-some years after that.
So I -- I wouldn't say that I developed it, but I've contributed a little bit to that literature, but that's the basis for -- for my opinions to the extent that they are based in financial economics, which is the assignment that I had.
Q Thank you. And are you going to offer any opinions on whether the actions of QVT complied with the IDSA agreements that they had with Lehman?
A No. I have no expertise to opine on that.
MR. TRACEY: Okay. So I would tender Professor Pfleiderer as an expert.
THE COURT: All right. Thank you.

Mr. Tambe?

MR. TAMBE: Yes, Your Honor. I have one question of clarification --

THE COURT: Yes.

MR. TAMBE: -- so I can shape my voir dire. I know from the examination that was just conducted, a general scope of what Professor Pfleiderer is going to be opining on. Am I to assume that he is going to opine on the topics that are set forth in the summary of opinions in his initial report?

MR. TRACEY: So some of them; I can't guarantee it's going to be all of them.

MR. TAMBE: No, no, that's fine.

THE COURT: But no --

MR. TAMBE: It's not going to be more than?

THE COURT: -- that defines the outer limits of it --

MR. TRACEY: Yes.

THE COURT: -- for the purposes of your --

MR. TAMBE: Right.

THE COURT: -- direct case?

MR. TRACEY: The initial report --

THE COURT: Yeah.

MR. TRACEY: -- is the outer limits of what I'm going to elicit from --

MR. TAMBE: Okay.

MR. TRACEY: -- this witness.

MR. TAMBE: That's very helpful, Your Honor.

THE COURT: Yes. Thank you.

BY MR. TAMBE:

Q Good morning, Professor Pfleiderer.

A Good morning.

Q A couple of points of clear up before we talk a little bit about just a summary of opinions, because I do want to talk about the summary of opinions and you're -- the basis you have for opining those subject matters as a part of voir dire.

A Um hmm.

Q But just stepping back. The FIRREA case, that was not a derivatives case, correct?

A I don't believe derivatives were involved in any way. I'll have to -- I'll have to think back, because the reason I'm hesitating is because in many cases you have securities with impeded derivatives; that was true in the tax case. But in the FIRREA case, the issue there hinged upon the pricing of preferred stock that the bank might issue.

Q Sure. And --

A And I believe that's correct, there were no derivatives that were directly involved.

Q And I believe you described your testimony in the

FIRREA case as relating to the valuation of supervisory goodwill, correct?
A It was related to the cost of replacing supervisory goodwill by issuing preferred stock and basically backing it up with risk free securities. So it wasn't so much the valuation of the supervisory goodwill, that had been taken away, it was the replacement cost of replacing what had been taken away.
Q Okay. And again, just to be clear, that had nothing to do with the valuation of any derivatives that might have been involved in the underlying matter, correct?
A Yes. Since I said I don't believe there were any impeded derivatives that were important there.
Q Okay. Iridium vs. Motorola, that -- it was an opinion about company solvency, correct?
A Yes, that was.
Q Again, not about derivatives, correct?
A I would have to think back to some of the securities that Iridium issued, but the -- the main answer is still derivatives were not directly involved.
Q Okay. The jury trial, DOJ case, I think you used a phrase, valuation of derivative claim that was embedded. You don't mean derivative, in that sentence, as OTC derivatives, you're -- you mean derivative claim as a shareholder derivative claim, correct?

A Well, the nonrecourse loan involves embedded derivative, which is -- which is an option, in this case a call option. And so it very much involves a derivative claim in the valuation of that, it involved valuating that derivative claim.

Q But not in the sense of the word that we use derivatives in this case, which are over-the-counter derivatives transactions, correct?

MR. TRACEY: Objection.

THE COURT: Yes?

MR. TRACEY: I think they're ships passing in the night.

THE COURT: They are ships passing in the night. You want to try it again, Mr. Tambe?

MR. PFLEIDERER: Sure.

Q The derivative you're identifying that you opined on in the jury trial in the DOJ case, that was not an over-the-counter derivative of the type we're talking about in this case, correct?

A Well --

THE COURT: I think the stumbling block is -- are the words, of the type, right? So in this case we're talking about ABS, RMBS --

MR. TAMBE: CBS, we're talking about credit derivatives.

THE COURT: -- CBS, right.

MR. TAMBE: Right.

THE COURT: And Mr. Tambe is, I think asking a question --

MR. TAMBE: Trying to. Yeah.

THE COURT: -- trying to, as to whether or not the types of derivatives here --

MR. TAMBE: Right.

THE COURT: -- which were traded to transactions on which QVT effaced to Lehman, or the same or similar types of transactions to that which you dealt with in the South Carolina case.

MR. PFLEIDERER: So I think -- I think the answer to that is, no. We use, in finance, the term derivative very broadly to mean any security that derives value from another security.

MR. TAMBE: And that's all I wanted to clarify.

MR. PFLEIDERER: Sure.

Q When you used the phrase derivative in the jury trial context, you were not talking about the type of products we're talking about here?

A That's correct.

Q Okay. The Barclays case, you and I spent some time on, correct?

A Yes.

Q And you did opine on about 12,000 CUSIPs, but those were individual securities, correct?

A I believe they were all individual securities, yeah.

Q And in fact, you did not do an independent valuation of a single one of those CUSIPs in the Barclays' case, correct?

A Yes. That was not what I was asked to do.

Q You just reviewed what Barclays had done and opined on the reasonableness of their approach, correct?

A I believe that's correct. Yes.

Q Okay. You were asked some questions about your academic publications, and let's -- so let's go to the binder that is in front of you, Exhibit 1689. And generally you were asked to identify, from your list of academic papers, the ones that dealt with your academic research on trading, volume, liquidity, things of that type, correct?

A That's correct.

Q And you started identifying papers that began on Page 2, about half way down, beginning with The Theory of Intraday Trading Patterns. You went down that page and it looks like you went to the first couple items on the next page; is that right?

A Yes.

Q So that's starting some time in 1988, correct? That's the first article?

A That was when it was published.

Q Yes.
A But I was doing research starting in 19 -- actually, my dissertation research started in 1979, but that was the date of the first publication.
Q So the intraday trading patterns, liquidity and market analyses that are reflected in these papers, on Page 2, over on to Page 3, are not in the OTC derivatives markets, they are in the equity and other markets, correct?
A Generally many of the principles apply across all types of market settings, but I think the examples, to the extent that I used examples, were oftentimes in the -- the equity markets. But they involved principles of having a dealer making a market in a context where you're trading securities and subject to adverse selection and other sorts of risks. So they generally had wider application than just in the equity markets.
Q Well, I'm not talking about the application of those articles, I'm talking about what was the data that you looked at when you published those articles. You were not looking at derivatives market data, correct?
A Oh. I -- I should clarify, these are all theoretical articles.
Q So you didn't look at any market data?
A No, these were articles that looked at the theoretical determinants of how volume would be determined and how bid-

ask spreads would be determined, based upon various factors, looking at equilibrium in a marketplace. So they were not empirical papers.

Q And again to be clear, they did not address the derivatives markets, correct?

A They addressed markets in general, and that would include derivatives markets, to the extent that there's adverse selection, trading volume issues and things of that sort. So my intent in writing these papers was to talk about markets in general, from a theoretical perspective.

Q Okay. Let's just talk about the summary of opinions, and if we can just pull up CX-1687. And I'm just going to refer to the summary that's in your initial report and you summarize in five subparts the topics in which you're opining. And so it would be Paragraph 33 and the sub -- and it's at the bottom, it's in Subparts A through E.

A Yes.

Q And I'm going to take each one in turn. I might skip one or two, but let's just look at the first one, 33-A. Just to be clear, you start by saying, "QVT followed a logical and systematic process that relied on available market data." Let me just stop there. In opining on that topic, you did not actually look at available market data, you looked at the data that QVT showed you, correct?

A Well, I -- I didn't say that it relied on all available

data, I said that it was relying on available market data.
Q Well, just to be clear, you did not independently look to see whether that was all available market data or only some available market data; is that right?
A No, that wasn't what I was -- I didn't think that that was what I was asked to do. I was asked, as I understood it, to look at their process and whether they were using market data to inform their -- inform their valuations.
Q Okay. And then the other phrase is select appropriate marks, and thereto, in terms of the basis for your opinion, you didn't compare QVT's marks to marks of other traders, people outside of QVT; is that right?
A No, I don't believe I did that.
Q Okay. And I know Mr. Tracey covered that you don't have any independent basis for trading expertise, or trading knowledge, correct?
A I testified that I am not a trader.
Q Okay. And you haven't done any academic research or written papers about how derivatives traders trade?
A No, I have not.
Q Okay. Let's go to the next one. You use a phrase here, in 33-B at the end, "generally accepted methodologies and principles of finance." And just to be clear, there are generally accepted accounting practices, correct?
A Right.

Q Right?
A I -- I believe that's correct. Yes.
Q But those are published by an accounting body, correct?
A Well, there's -- yes, I mean, there's U.S. standards and there's international standards. So yes, there are -- there are accounting bodies that publish those --
Q Right. And you --
A -- or that set those rules.
Q Right. So you've got a lower g, lower a, generally accepted methodologies and principles for finance. Do you see that?
A Yes, I do.
Q There is no similar body of accepted standards on principles of finance, capital G, capital A methodologies and principles of finance, correct?
A If there is, I'm not aware of it.
Q Right. And in fact economists frequently disagree on methodologies and processes, correct?
A On a number of things they do. There's some general agreement on -- on some things, but there's certainly disagreement on others. Yes.
Q And just going to 33-D. You've got a sentence in there about -- the second sentence, "I understand that under Section 14 of the ISDA Master Agreement, QVT is a non-defaulting party who is entitled to calculate its total

losses, gains or costs if done reasonably and in good faith." You're not purporting to opine, as an expert, on ISDA Master Agreements, correct?
A Oh, absolutely not. I -- I think Mr. Tracey asked me that and I said that I'm not in any way opining on being an expert in -- in ISDA.
Q Okay. And you did not independently conduct the calculation of QVT's total losses, gains or costs, correct?
A I'm sorry, could you repeat the question?
Q You did not independently conduct a calculation of QVT's total losses, Gaines or costs, correct?
A Yes, that is correct.
Q Next one, 33-E, please. And here you are summarizing an opinion on the outcome of QVT's analytical methods; do you see that?
A Yes, I do.
Q And you end that summary by saying, "In compliance with the guidelines in the ISDA Master Agreements;" do you see that?
A Yes, I do.
Q "And generally accepted valuation methods used for CDSs;" do you see that?
A Yes, I do.
Q Now you are not opining on what the ISDA Master Agreements require, correct?

A No, I'm not.
Q And you are not aware of any generally accepted valuation method used for CDSs, generally. You know what QVT did, you don't know what other traders did?
A Well, that's why I qualified it by saying, to my knowledge, so I'm not -- I'm not saying with certainty that -- and I, again, am not testifying as to what the ISDA Master Agreement requires, so I'm just saying to my knowledge.

MR. TAMBE: Your Honor, based on this witness's testimony --

THE COURT: Yes?

MR. TAMBE: -- there's certain aspects of the opinions that we anticipate he might opine on, based on the summary of opinions, that I believe he is -- he lacks the experience or the qualifications to opine on those aspects of his opinions.

I think to the extent he's opining on general finance theory or economic theory, in a theoretical sense, take it case by case, we don't have an objection to that. But to the extent he's converting that financial theory or economic theory into opinions or observations about compliance with the ISDA or general valuation of CDSs, we don't think he has established the qualifications or experience to do that.

THE COURT: All right. Thank you.

So Lehman had originally raised these issues in its prehearing memorandum, which was filed before this trial started and indicated, in broad outline, what its concerns were with respect to Professor Pfleiderer's qualifications.

Based on that, and a review of the expert report, and in light of the voir dire that's just been conducted, and in particular as Mr. Tambe has led Professor Pfleiderer through the specific opinions that are outlined at Paragraph 33 of his report, I'm going to allow and qualify Professor Pfleiderer as an expert under 702, with one exception.

And that exception is contained in Paragraph 33-E. And notwithstanding Professor Pfleiderer indicating that his views about compliance with the guidelines in the ISDA Master Agreement are qualified by his knowledge, I don't believe that Professor Pfleiderer, based on his own testimony, has any expertise with respect to the guidelines, compliance with the ISDA Master Agreement.

Moreover, I believe that the question of whether or not QVT's methods and valuation complied with the ISDA Master Agreements is a legal determination that's within the province of the Court and not properly the subject of any expert testimony.

So with that qualification, then Professor Pfleiderer, excuse me, is qualified to testify.

Did you want to take a break, Mr. Tracey, or did you want to start right in?

MR. TRACEY: Since we're going to have to --

THE COURT: Either one is fine with me.

MR. TRACEY: -- since we're going to have to take a break relatively soon probably anyway, this is probably just as good a time as any.

THE COURT: Okay. So why don't we take seven to ten minutes, and then we start up. All right?

Professor Pfleiderer, the rules are that you are, of course, remain under oath and during the breaks, including lunch, please do not discuss the case or your testimony with anyone or be in anyone's presence while they're doing the same. All right?

MR. PFLEIDERER: Okay. Thank you.

(Recess)

THE COURT: Professor Pfleiderer?

DIRECT EXAMINATION

BY MR. TRACEY:

Q Mr. Pfleiderer, have you prepared a written report in connection with your engagement here?

A Yes, I have.

Q And I think Mr. Tambe may have referred to it, but is that what we've marked as Claimant's Exhibit 1687?

A It is.

Q And would you describe for the Court the --
A Actually, I believe it's 1689. Or am I -- oh, I'm sorry, I'm looking at the wrong one. I apologize.
Q Is it 1687?
A Oh, yes, it is.
Q Okay.
A I'm sorry.
Q Would you describe for the Court what work you did in preparing this report?
A So I started work on preparing the report pretty much after the mediation, but I should observe that I was involved before the mediation as an consulting expert, but I'll put that aside and just talk about what I did after the mediation.
And what I did was look at what QVT agents had done in valuing the various positions of the 836 that they had to value. I looked carefully at the spreadsheet, which I knew with the different number than what it is now, but I looked very carefully through that and looked at a number of other things to eventually get comfortable with the notion that what QVT had done was reasonable, given the -- given the market conditions at the time, and as I said, general principles of economics. So in broad terms, that's what I did.
Q And have you prepared a list of the documents that you

reviewed in connection with preparing your report?
A Yes, I believe that appears at appendix -- in my report, Appendix C.
Q And in general terms, could you describe for the Court whether you have reviewed any transcripts of sworn testimony in this case.
A Yes, I have. I reviewed a number of depositions that were taken prior to trial, and obviously prior to -- to writing this report. And then afterward I've reviewed others, but those obviously didn't factor into the report.
Q And have you, since then, reviewed the sworn testimony of QVT individuals given in this trial?
A Yes, I have.
Q And have you listened to any of that testimony?
A Yes, for the past two days, Monday and Tuesday.
Q And based on hearing the testimony at this trial, is there anything that has changed your views that you expressed in your initial report?
A No, I understand that there were some corrections that were made to the, as I recall, the market quotation process, but other than that I heard nothing that I didn't factor in at the time when I wrote the report.
Q And did you have any assistance in preparing this report?
A Yes, I did.

Q And who assisted you?
A I was assisted by a number of people at Brattle, which is a litigation support and consulting firm.
Q We'll go through the specifics, but I first want to ask you whether, based on your review of the valuation methodology that QVT used, based on the information that you just described, have you formed an opinion on the methodology that QVT used?
A Yes. I found it reasonable, given the market conditions at the time and adhering to basic principles of financial economics.
Q And let's first discuss QVT's methodology. Are you aware of the approach that QVT used to prepare its loss calculation in connection with the termination of its ISDA Agreement with Lehman?
A Yes, I am.
Q And would you describe that, in general terms, what that approach was?
A So in general terms, they first sought market quotations through a bid (indiscernible) competition to satisfy -- and again, I'm not opining as an ISDA expert, but to satisfy what I understood to be the requirements of ISDA to first go to market quotation -- to solicit market quotations. And so they ended up, as I recall, getting 12 adhered to the need -- requirement to have three market

quotations. And when that standard was not met, then they could revert to loss.

Q And did you review the approach that QVT used in calculating its loss in connection with its termination?

A Yes, I did. In fact, because that basically applied to almost the entire portfolio because very few market quotations were -- were received to go through the market quotation process.

Q And again, can you describe, in general terms, we'll get into the specifics later, what your understanding was of the overall approach that QVT used to calculate its loss.

A So my general understanding is that when they were able to make a replacement transaction, which they were in some cases, that was registered as the -- as -- as the loss, as the cost of replacement. And then when that failed, they had to use various other sources of information to determine what they hypothetically could have replaced at, given that they did not an actual replacement trade.

Q And what types of information was that?

A So in the mix of information that they would have had would be, in some cases, market quotations that they'd received in this solicitation for market quotations, but less than three because if they had three they would have done the market quotation process or they would have -- they would have counted that as a market quotation. So in some

cases they had one or two bids or offers that they'd gotten in their bids, one in competition or offers, one in competition. If -- so that was one piece of information, or pieces of information that they had.

They also had information from Markit on a number of positions that they could use. And then they had some -- some broker runs, indications from brokers, as to what would be paid for various positions, either at the bid or the offer. And in some cases they had to rely on -- on what we would call market proxies because none of the former information was available, reliable marks from Markit or reliable broker runs or certain also unavailable in those cases were -- were market quotations coming from the market quotation process.

Q And would you describe, again in general terms, we'll get more specific, the overall portfolio that QVT was performing this valuation on?

A So there were 836 positions, contracts, transactions, I've heard them called different -- different names, securities would be another term. And the predominant number of those were credit default swaps, or in some cases preferred credit default swaps, on various entities. And there were a few interest rate swaps.

Q And did you gain an understanding of whether those positions were liquid or illiquid or something else?

A The understanding that I gained was that there was an array for spectrum of liquidity, but that much of it was -- was towards the illiquid part of the spectrum, and some of it was -- was highly illiquid.

Q Okay. Well, what I'd like to do is talk about the economics of the CDS to start. We've all gotten, all ready, an education before the professor came, but I think it would be helpful just to go through it. We prepared a demonstrative exhibit that you can refer to, if you like. It's Claimant's Exhibit 2148.

So if you could, would you please just describe the economics of a CDS transaction?

A On one level it's -- it's actually rather simple. It's an insurance contract where one party, the buyer of protection, pays periodic premiums, either on a quarterly or sometimes a monthly basis. And what one is buying, by paying those premiums, is protection for a loss on a credit event. So a credit event would be defined in various ways. And in the situation where a credit event occurred and such a loss was actually operative, then the buyer of protection would basically be paid the difference between the face value or par value of the security and whatever the security was worth at the time of that credit event.

Q And how does the buyer pay for the so called insurance?

A Well, it -- it depends, to some extent, on how that is

sold. In, shall I say, normal conditions, at least at this time, the buyer would pay a running spread, just pay a premium, periodic premium. But for highly distressed referenced securities, it was oftentimes necessary to pay an upfront payment, to pay something in points. So you -- you paid for much of the protection upfront.

Q And you referred to a referenced obligation. Does either party need to own that referenced obligation?

A No. It could be that one party owns it. The protection buyer, for example, could own it and use the credit default swap as a hedge, but I think over time the -- the market has moved quite a bit away from that and many buyers do not own the referenced obligation, rather what they're doing is -- is buying an instrument that has a certain payoff pattern that they want based upon their belief about credit risk and what's being charged. So it could almost be said that in that case, I don't like to use, necessarily, the word speculating, but they're -- they're speculating on -- on the credit event and whether the price is -- is -- is reflective of the risk.

Q And now I'd like to turn to a slightly different subject. Are you familiar with the term short sale of securities?

A Yes, indeed.

Q And would you describe that for the Court, please?

A So usually what we say is buy low, sell high. So you buy Google at a low price and you sell it later at a high price, you make a profit. What if you believe that Google is going to decline in price, and you don't own any Google shares? What you can do is go into the market and short Google, in which case you're going to be selling high, or what you believe is high and the way you affect that is you go out and borrow Google stock, and incidentally I'm just using Google stock because it's -- it's something that came to mind, but it could almost be any security, you -- you would go out and basically find someone who would lend you Google stock and you would sell it, and then if your hopes come true, Google would decline in price and you could go and buy it at that lower price.

So at first you're selling high, and then you're buying low in the future. And when you short that stock or, to talk about it more broadly, any security, you have to make the payments that are required on that security. For instance, on Google stock it would be any dividends, on any other security, it would be any cash flows that the person who lent that security to you would be entitled to receive. So it's just reversing the timing of buy low, sell high. To sell high, buy low.

Q And how do the economics of a short sale relate to the economics of a purchase of protection in a CDS?

A So directionally they're very similar in the following sense. So if I were to buy a CDS on a corporate bond, then I would have an increase, generally in my position, an increase in value, if that corporate bond became distressed and went down in price. So on a credit default swap I gain when the corporate bond goes down in price. And again, if I short the corporate bond, I gain if the corporate bond goes down in price. So in broad terms, directionally they have the same exposure.

Q And how does the position of a seller of insurance in a CDS relate to the economic position a buyer of securities?

A Well, in some sense it's the mirror image or the reverse. So if I told you protection, then I'm of course hoping not to have to pay off. And if the bond goes up in price, that's because in all likelihood it's less likely that a credit event is going to occur so the bond going up in price will be something that will make a benefit for me -- lead to a benefit for me, the protection seller. So a protection seller has the same, broadly speaking, directional economics as someone who has bought the underlying bond.

Q And going back to the position of the buyer of protection, why would someone -- why would an investor buy protection through a CDS rather than selling the security short? What are the differences?

A Well, there are a number of reasons why a credit default swap might be preferred over shorting the underlying security. One of the reasons is that a credit default swap can be easier to enter into than shorting securities. For example, when I short a security I have to go out and find someone who will lend that security. And in most short sales, the lender of that security can demand the security back at any time. And that would basically potentially limit my ability to -- to gain by the short sale position. Whereas, if I have a credit default swap, in some sense the economic essence of that short is locked in.

In addition, when you short a security oftentimes there's a cost to the short. And so that would -- that would make, everything else being equal, the credit default swap more attractive. So that would be -- those would be two of the reasons why a credit default swap might be preferred over taking an actual short sale position.

Q Okay. I'd like to turn to a variation on that. Are you familiar with the term PCDS?

A Yes, I am.

Q And what is the PCDS?

A So a PCDS is basically a credit default swap on a preferred security, preferred stock issued by a company, oftentimes a bank or a financial institution.

Q And how do preferred CDSs work in relation to CDSs that

you just described?
A Well, in many ways they're -- they're quite similar. They're a form of insurance, the buyer of protection is going to pay a premium. The one notable difference -- well, there are actually two notable differences. One, which is important, is that a preferred security is -- is lower down in the capital structure, so it's more exposed to, shall I call it, credit risk, in other words adverse things happening to the company, because the debt, all the debt in place comes before the -- the preferred in the priority structure. So that's one difference.

The other notable difference is that a preferred security contract -- sorry, I misspoke, a preferred CDS has an additional credit event written into the contract, which would be a deferral of dividends on the preferred. So a preferred stock, and one of the reasons why preferred stocks sometimes can be counted for capital if it's in -- issued by a financial institution, is that you can, as the issuer, defer or delay the dividends without triggering a default. So when a issuer delays the dividends on the preferred issue, that triggers a default -- excuse me, that triggers a credit event in terms of the PCDS contract.
Q And did you review the PCDSs in QVT's portfolio with Lehman?
A Yes, I did.

Q And would you describe what your understanding was of their PCDS portfolio?
A Well, my recollection is they had I think 60 positions and there's one qualification. They had basically not bought protection but sold protection, as I recall, on some preferreds on CVS, the -- the healthcare drugstore and that's not what is -- what I'm going to talk about, but I -- that was another preferred that they had.
The primary issue or primary concerns, as I understand it in this matter, relate to 60 transactions in which they were long protection on preferred instruments and those referenced 19 different financial institutions, some in the United States and some -- some in -- in Europe and -- and Australia and New Zealand, I believe.
Q And did you gain an understanding of the nature or structure of the market for PCDS in 2008?
A So my understanding is that Lehman, in I think it was maybe 2005 or so, attempted to create a real market in these instruments, PCDS, and it was a new market, if you will. Trading had been -- hadn't been before. And my understanding is that Lehman was, for all intents and purposes, the main, if not the only real effective market maker in PCDS. And that it was not a liquid -- liquid instrument that was traded in the market.
Q And what effect on the market did the failure of Lehman

have on the PCDS market, at that time?
A Well, when you only have one market maker, and that market marker fails, there are a number of problems that obviously occur. One is you have difficulty in trading, because the market maker is there to facilitate trading. And you also have, and this is -- basically follows from that, you also have difficulty, if you don't have trading, getting market indications of where the -- where the price would be.
Q And did you review QVT's approach to the valuation of its PCDS positions following Lehman's bankruptcy in 2008?
A Yes, I did.
Q And did QVT attempt to solicit market quotations from the market on PCDS?
A Yes, I believe it did.
Q And do you know whether they received any?
A No, they did not, as far as I understand.
Q Was there any established methodology, to your knowledge, for the valuation of PCDS claims, in 2008?
A Certainly not for a situation where there was -- was no trading and no market marker that was basically in -- in the business of generating trades and that you could use to get market indications of what the value would be.
Q And so how did QVT calculate the value of its PCDS positions?

A So QVT took the approach of that based on the assumption, which I think was an extremely reasonable assumption, and given that there were no market makers out there that could do a business where they would sell protection to one party and get protection from another so that they wouldn't really have any risk on their books. They took the approach, which I think is quite reasonable, that if a dealer would be selling protection -- shall I say take it; in other words, they wouldn't have a balance on the other side -- that dealer would have to hedge the risk, substantial risk, that would be faced if there was a credit event.

And so they went back to this notion that we talked about earlier, that a PCDS or a CDS has the attributes of a short position in the underlying security. And, in fact, what they did, if I look at it, is quite sensible because it is the effective way for a dealer to hedge risk, or anyone, if they don't have a counterparty on the other side who's offering protection.

Q Let's talk about hedging. I think we've prepared some slides that you can use if you like. But I wonder if you could describe for the Court the process of hedging a sale of protection in the PCDS market.

A Sure. So I'm going to do this in a really simple way. Some of the mechanics could be a little bit more

complicated, but this in broad brushstrokes really captures what is the exposure of a dealer and how the dealer can mitigate effectively that risk.

So I start with today with the notion that we've got a preferred out there is selling, let's say, at 80. And so, let's say you come to me -- you, Mr. Tracey come to me and I'm a dealer, and you want to buy protection from me, and so I'm going to sell you protection. And the question is, what price should I charge for this?

So here's what I would be thinking or considering, some of the risks that I would face if I sold you protection. What if there's a credit event in the future, and the preferred in that credit event is going to sell probably quite a bit less than the 80 which it sells at today; what am I going to owe you? Well, I have to pay you 100 minus the value of the preferred at that time. I have to pay you $55. So what should I charge you up front? Now, it might seem, well, I could charge you $55 up front and just put the money aside and have it there in reserve. Well, that would be both too much and too little to charge you that amount and put it off to the side. Because what happens if there's a more severe credit event and the preferred sells at 15? Then I owe you 100 minus 15, I owe you 85 and I've not put upside 85, so I've got a substantial loss.

So here's what I can do to effectively mitigate that risk, which is a substantial risk, especially in a brewing financial crisis. Again, start out with the preferred selling at 80. What I'm going to do is I'll offer protection to you and charge you the difference between 100 and 80; I'll charge you 20. And I will receive then $20 at the beginning. What I'll then do is short the preferred, which is selling at 80, and I'm going to receive 80 because when I short, I go into the market, borrow the security, and then sell it at 80. So now I've got 100, and I can set that aside in a riskless account.

So now let's go forward and assume that one of these credit events occurs. So let's say the credit event occurs. It's not a terrible credit event and the preferred sells at 45. So I owe you -- again, just to remind ourselves -- I owe you 55 -- 100 minutes 45. So I've got to pay you 55. But what I can do is I can close the short position. Now what does that mean? It means I have to go out into the market and buy the preferred back at 45, so I'm going to pay 45. But remember I've got 100 that I set aside at the beginning, so I basically maybe put that into a riskless bond. I can cash that in, if you will, and receive 100, so I have no loss. I've covered myself.

But now let's go and look at that worst case, where the preferred is selling at 15. Am I in trouble?

Well, I owe you 85, so I'm going to have to pay you 85. What I can do is close the short position. But now the preferred is selling at 15, so when I go out into the market, I only have to pay 15. And, again -- this is important -- I've got 100 in my riskless account, so I receive 100 and, again, my loss is zero.

So what's really happening here is the way that I'm able to do this and not have any risk on this downside is that I'm getting this payoff from the short. The short position is what's really making it so that I don't have to worry about how severe the credit event is. So the payoff from the short was 55 -- I'm sorry, excuse me, I misspoke. The payoff when the preferred sells at 45, the payoff in the short if 35. And I collected the 20 up front, so my total payoff was 55, and what I owed in that case was 55. And then in the more severe credit event, my payoff on the short was 65. I collected, again, 25 from you up front, so I've got 85, which is what I owe you.

And just graphically, you can see it here where I'm the x-axis and, of course, (indiscernible), what I have is the price of the preferred in case of a credit event. And the more severe that credit event, the more the payment I have to make. That's the blue line; that's my loss. If I was unhedged, that would be a severe loss. But I'm hedged, which the lighter blue line at the top, which is the sum of

the upfront 3, plus the payoff from the short position.

So this is really the only effective way that I can sell you protection and manage the risk without basically taking any risk. Now, again, if I had access to someone on the other side of the market who wanted to sell me, as the dealer, the protection, then I could take that protection from that seller and then just resell it to you, probably at a bid ask spread. And all I'm exposed to then is the counterparty risk that whoever I bought that protection from may not pay off. But in absence of having someone on the other side of the market, if I'm standing in between as a dealer, then this is what I have to do.

So going back, QVT knew, I think with great certainty based upon what it'd seen before in terms of this market and interacting with Lehman trying to buy protection, that there just weren't much -- there wasn't much interest, if any, on the other side of the market. So if you demanded protection from the dealer, then the dealer would be -- again, I'll use the word naked, not out something to offset the risk by having protection sold to that dealer -- this is what the dealer would have to do.

Q And you started off by saying that the dealer would need to sell preferred into the market. How did QVT determine what the price of that preferred security would be if the dealer sold into the market?

A So what QVT did was look at actual prices. So, here, we've got some market prices. And, again, we have to think back, if QVT had had reliable pricing on PCDS, it could have used that, with perhaps some adjustments made for what made have happened over Lehman week, what happened between the 12th and the 15th.

But there were really no reliable PCDS pricing on it because there just wasn't a market here of any consequence. So they had to go and look at the next best thing, which was the pricing of the underlying prefer. And they observed, as I just have, that to hedge this risk, the dealer would have to, as I say, short the prefer.

So what they did is they looked at the prices that the preferred was selling at over the week. And, of course, those were prices that were set in a market where a dealer wasn't selling. In other words -- this is a hypothetical -- if you lay on top of whatever was happening that week, the additional selling into the market of a dealer attempting to hedge, the prices would be potentially lower -- potentially much lower -- than what was actually observed.

So they took the prices that week. And what they did is recognizing that there would be significant market impact, they took the lowest price that they saw over the week as an indication of what that market impact might be.

Q And when you said that the prices would be lower if

there were sales of securities, what is the economic principle behind that?

A Well, the economic principle is the following: First of all, if I come into this market right here in the Courtroom and I attempt to sell a huge amount of anything, I'm potentially going to have to lower my price to get the people in this Courtroom to buy. Now that may not have been the best setting to talk about this. But in the open market, if I go and sell a huge amount, there are only so many buyers there that are positioned to buy it.

And the buyers are going to demand a lower price to transact that, partly because I'm asking them to take more of a particular risk. Also, because they worry about adverse selection or information that I might have. Why is someone selling a large amount of preferred? What does that individual or what does that entity know, especially if they're selling preferred across a bunch of financials.

So the market -- and this is what I've done a lot of my research on -- the market will respond to big sell orders factoring in the possibility that the motive for selling is because the seller views these as overpriced, a good time to sell. And if I know that you're selling me something and your motive is potentially because you think it's overpriced, I better take that into account and lower the price. So that happens across the board in all markets.

So for all those reasons, there's going to be what we call market impact.

Q And how did QVT take that market impact into account in its valuation?

A Well, again, what they did is they looked for the lowest price that the preferred was trading on over the week. And at this point, I have to say that that approach, I can't really say has scientific basis. That wouldn't be the way that I would have thought about trying to gauge market impact. On the other hand, I'm not sure what would be a good way. There's no way that stands out as a perfect way to do it. The rationale behind this did have some merit. And the rationale is that if I see prices fluctuating over time, the lower prices are likely to be prices that happened because someone was selling, and the higher prices would likely be ones where someone was buying.

So that was the rationale, which, again, does have merit, and they employed that. I wouldn't have approached it that way. But, I, again, am not sure exactly what I would have done. But I understand that the effect of this was roughly to factor in about a 6 percent market impact. And I would have guessed -- I shouldn't use the word guess -- I would have, knowing that market, I would have thought that it would be higher than 6 percent. I think 6 percent, it's fairly conservative given what I know about that market

and the volumes that were trading.
Q And when you said they used the lowest price of the week, were those closing prices?
A Yes, those were closing prices.
Q And in reviewing the valuation of the PCDS in September of 2008, in addition to the market impact of a potential sale of preferred securities, were there any other affects that you identified that would have affected the price of PCDS at that time?
A Yes, there were. So, again, just to go back. If I'm a dealer having to hedge this risk, mitigate this risk by shorting the securities, I face a number of other issues beyond just selling those preferreds in the market and the market impact, which we've discussed. For instance, when I borrow security, oftentimes, there's a cost to borrow. I have to pay a fee, if you will, to the individual or entity that I'm borrowing the security from. And that could be a 1/2 percent, 1 percent, 1-1/2 percent, it would depend upon the setting. But that would be potentially material -- potentially quite material to my calculations as a dealer.
Q You refer to 1 percent; 1 percent for a period, some period?
A 1 percent a year. And, again, it varies quite a bit depending upon the market conditions and the demand for shorting.

Q And did QVT take into account in its calculations the costs that a borrower -- costs that a dealer would have incurred in borrowing securities?
A No, it did not.
Q And how would that affect the value of the PCDS?
A Well, that would have definitely, to the extent that it increased the cost of this hedge, it would increase the -- basically, the cost that the dealer would charge to QVT and increase the amount of the claim here.
Q Were there any other affects that you identified that would have affected the value or price of the protection?
A So another -- I should say there's also, just to emphasize, when you short a security, the dealer would run some risk that the lender would want it back, so might charge you a little bit more for that risk as well. But another main issue here, a main concern, would be that the PCDS contract gives the buyer of protection the right to deliver to the seller of protection the cheapest security. And that can be quite valuable, especially if there's quite a bit of variability among what the prices of the securities would be because I, as the protection buyer, have the right to select whatever is cheapest.
And, of course, at the time that the protection is put on, if I'm buying the protection from you, you don't know which is going to be the cheapest to deliver security.

If you were lucky, you might short that security, and then you would be in a position where you wouldn't be adversely affected by my delivering the cheapest to deliver security. But if you chose one that ended up not being cheapest to deliver, then there's an additional shortfall that's risk to you. And arguably, a dealer could have factored that into the pricing as well, knowing that that's a benefit to the protection buyer.

Q And did you review which securities QVT used to obtain its prices for the underlying preferred?

A I did.

Q And did QVT use the cheapest to deliver security in those calculations?

A My understanding is that the approach, generally speaking, was to first look for the reference obligation and to use pricing on that, unless there was little pricing or if pricing on that was viewed as not reliable, and then taking something else. But there wasn't a decided effort to take the cheapest security at the time, which could have been a sensible thing to do. Because if I'm selling, again, protection to you, knowing that you're going to deliver the cheapest to deliver, it probably makes sense for me today to short what is the cheapest today.

Q And if QVT had used the cheapest to deliver security in their calculations, how would that have affected their

claim?
A That would have increased their claim by a material amount.
Q Were the -- I want to turn to a slightly different subject, and that is the maturity of the PCDS. Were the maturities of the -- do you recall what the maturities of the PCDS's were that were being guided here?
A I don't require them all specifically. But I think the average, if I recall correctly, was around four or four and a half years. I may be wrong, my recollection may be wrong, but I believe that's about what it was.
Q And what you've been talking about here is selling preferred securities to hedge that four-and-a-half-year risk, right?
A Yes, that is correct.
Q And are the preferred securities that are being sold four and a half year securities?
A No. Preferred securities oftentimes have very long lives; in fact, some of them are perpetual or don't have a maturity date. So at first, it would appear that there's a big mismatch. I'm selling something to hedge, which is a long-dated security, and the protection only runs for four and a half, maybe five, six, seven years.
So what's important to understand here are several things: First of all, cash flow payments that are received

far out in the future are not worth much today. I used to teach my MBA students about what was called a Wal Disney Sleeping Beauty buy, where Walt Disney issued bonds that had a hundred-year life. And the repayment of principle a hundred years away was, in today's terms, worth 7 cents. So if you learn that Walt Disney wasn't going to pay that $100 in a hundred years, that would have caused the bond to go down by 7 cents because it's so far out in the future. So that's one thing. In any instrument, you're worried and put more weight on what is near term.

But that's not the major point here. The major point here is that QVT is replacing these PCDS contracts at a time when risk, especially in the financial sector, has gone up remarkably. And just a few days before, you had the event where the government-sponsored entities Freddie and Fannie, as they're affectionately known, were placed into conservatorship, or receivership, by the U.S. government. And the effect of that was to reduce greatly the value of the preferred.

And we're now in a position on September 15th and following when the whole market is in turmoil with the failure -- the biggest bankruptcy in history -- failure of Lehman Brothers and a great stress on the financial system.

So it was very reasonable for QVT, at this time, to make the observation that if a dealer is going to hedge

this, they're looking at doing so in a financial crisis basically that's brewing, is going to affect financial firms, which is exactly the firms that have issued these preferred securities.

And in the end, what that means is that the insurance is really relevant to the short term. That's what you're really insuring because that's where the risk is concentrated. So the fact that the preferred is a long-dated instrument and the protection is over four or five years is a consideration, but a consideration of limited significance here, partly because of what I talk about with the Sleeping Beauty bond. But much more because we're entering a financial crisis and that's where you really need the insurance protection, and the financial crisis is going to basically play out over the next four or five years. And that means that the protection you're really seeking and the pricing of the preferred is going to be related to what happens in the next two, three, four years.

Q And so in the end, what was the total amount that QVT calculated as the value of its PCDS positions?

A I believe it was 134 million.

Q And based on all of the factors that you've described, do you have an opinion as to whether that valuation was reasonable under economic principles?

A I think it was very reasonable, given the situation and

the fact that QVT could look out in the marketplace and say, there are no dealers here, there's no market, and a dealer who would take this position would have to hedge this risk. So I found it very reasonable.

Q Okay. I'd like to turn to a different subject, a position that QVT had with Lehman called (INDISCERNIBLE). Do you recall that?

A I do.

Q And would you describe, in general terms, what the (INDISCERNIBLE) product was?

A So the (INDISCERNIBLE) product was something that basically had been put together by Lehman and was marketed by Lehman, and Lehman was, to the best of my knowledge, the sole market maker in it. And what it was was a basket of credit default swaps on very low, highly subordinated tranches of asset-backed securitizations. And the assets that were backing it were, I believe, something like 100,000/99,000 loans to automobile buyers to basically purchase automobiles -- either new or used automobiles.

Q And were there particular originators or servicers of those loans?

A Yes, there were two. So half of the securitizations that were covered on this CDS that were part of the basket were associated with Ford, and the other half were associated with GM -- or GMAC.

Q And are you aware of whether there were any other dealers in the market making a market for (INDISCERNIBLE) in 2008?

A No. I haven't seen no evidence at all that there was any other dealer playing anything close to an active role, other than Lehman.

Q And can you give the Court any sense, based on your review of this matter, of the size of the market for (INDISCERNIBLE) in 2008?

A Well, I think it was extremely limited. As I understand it, at the time of the filing, there, I believe, were outstanding 95 million of basic open notional interest, as I might call it, and QVT had 80 million of that. So QVT had about 84-85 percent of the market -- of what was issued in terms of protection.

Q That's purchases of protection?

A Purchases of protection, yes.

Q And did you review the methodology that QVT used to value its (INDISCERNIBLE) position in 2008?

A Yes, I did. Yes, I did.

Q Okay. And did QVT request market quotations in the market for the (INDISCERNIBLE)?

A No, I believe this is one case where they made an error and, for some reason, it didn't get included in the market quotation process.

Q And do you have an understanding of whether there were pricing services that provided pricing on (INDISCERNIBLE) in 2008?
A I do not believe there were any prices that were available, again, because there were basically no transactions, or extremely sporadic transactions, as I would call. The last transaction that Lehman made -- well, I shouldn't say it. The last transaction that QVT made on this was to sell back to Lehman some of its protection in, I think, it was July of -- the Summer of 2008.
Q What was the methodology that QVT did use to value these positions?
A So the problem, of course, here is that you have no pricing on (INDISCERNIBLE), which is the basket, and then you have no pricing available on the credit default swaps that make up that basket, and then you have no reliable pricing on the actual underlying instruments -- underlying bonds -- that the credit default swaps reference because there's really not much of a market there that's reliable. So all the way down, you don't have reliable market information.

So, in this case, QVT had to use what I think would generally be spoken of as a proxy. Find something that would be traded in the market in a way that we could get reliable market pricing that would be basically a proxy

for, meaning that it's related to the pricing of what I don't have information for. And QVT chose to use GMAC, created false swaps on GMAC, as an indicator of what was happening in the market at that time and how to adjust for what was happening.

Q And you referred to this as a proxy. Is the use of a proxy an accepted method for valuation under economic principles?

A Yes, it is.

Q And could you describe how that works?

A Well, to make it as visual as possible, let's imagine that there are various rooms where there are traders. So we get market pricing from traders. So in Room 1, that's where what we're trying to price is traded and there are no traders in that room. So when we got into that room, Room 1, there's no market pricing at all. And that was really the case for (INDISCERNIBLE). And then we go into the second room, the one that's closest, which might be pricing on the underlying credit default instruments that make up the basket, and there's no trading there. So we sort of have to go down the hall until we find a room where there's a lot of traders trading something that's close enough to what we want to price that we can get an accurate indication of how, in this case, values had changed.

And QVT reasonably went down the hall a little bit

of a distance to come up with the closest thing that would capture -- or one of the closest things that would capture what was happening in the market for automobile loans, given we're entering into a financial crisis, unemployment rates are going up, all kinds of things are happening, and they chose to look at credit default swaps on GMAC. And for that room, we've got a lot of trading. We've got enough trading that we're getting reliable prices, so that's what they did.

Q And you use the term close enough to the original security. Under economic principles, what are the standards for knowing whether it's close enough?

A Well, it's difficult to determine, and here's where reasonable people could disagree. It's difficult to determine what the perfect pro -- well, first of all, there's no perfect proxy, I shouldn't' have even said that -- what the best proxy would be. And what you're looking for is something that's going to be affected by economic events in roughly the same way as what you're trying to price.

So had QVT gone and used something that was totally unrelated to the automobile loan market as a proxy, that would not have been reasonable. Because, unless you have some firm foundation for believing that this other thing, whatever it might be, is going to have the same economic exposures as a basket of automobile loans, there's no reason -- it's not reasonable to use that as a proxy.

But in using GMAC, that was obviously an entity that was exposed in a very significant way to automobile loans. And the pricing on that and the change in the pricing on those CDS's on GMAC was a good proxy because, again, the economic exposures were closely in line.

Q And how did QVT use the -- let me back up. You said earlier that these underlying loans were issued by both GMAC and by Ford?

A Yes, that's my understanding.

Q And could QVT have used Ford CDS's for finance CDS's as a proxy?

A That would have been used potentially as a proxy as well or some combination. In principle, one could have used Chrysler. First, you hear that and you say, that doesn't make sense. Well, it does in a sense because what I'm trying to determine is what is the risk, at this juncture -- Lehman week -- what is the risk to U.S., basically U.S., borrowers who had borrowed on their automobiles of paying it off. It really doesn't make much difference, at least in my mind and I haven't heard an argument to the contrary, whether it's a Ford that's been purchased or a Chrysler or a GM car.

What we're really looking at is the risk of borrowers, many of them with low FICO score. A lot of the loan-to-values were high here. And, again, we're talking

about the very subordinated tranches here. So, arguably, another proxy could have been any other instrument that was exposed to loans made by U.S. customer to buy automobiles here in the United States when the unemployment rate is going up and a lot of things are happening.

So the answer is, Ford could have been used and Chrysler and perhaps some other things. As I understand it, one of the reasons they used GMAC was that this was interpreted this position as a hedge to some other positions that they had, so they gravitated toward that. And, in my view, it was reasonable to use that as a proxy. But there are other proxies that could have been potentially used as well, and it's difficult to determine X entity what the best proxy would be. Here's where some judgment comes into play.

Q And how -- did you get an understanding of how QVT used the GMAC CDS prices to -- as a proxy?

A Yes. So the valuation approach was to begin with the mark that had been placed on the (INDISCERNIBLE) basket as of December -- excuse me, I misspoke -- September 12, 2008, and I believe that mark was 16. And then to account for what obviously happened that is extreme -- the bankruptcy of Lehman Brothers and the heightening of the financial crisis -- by looking at what happened to GMAC credit default swaps from the 12th to the 19th. And we'll talk in a moment, I would guess, about why the 19th. So that was a 15 point

increase, and so we add 15 to 16.

And then QVT realized that this is 80 million out of a total market, at least at the time, of 85 million. And in going out and trying to get protection, to repurchase protection in the market from a market where there are no dealers available in (INDISCERNIBLE) because the one dealer has now filed for bankruptcy, and all the other conditions, they made an assumption that the, in sense the -- I'll call it the market impact, but that the pricing would reflect an additional 15 points. And just having to convince someone on the other side to take that position when you have a very complicated illiquid instrument, so that's another 15 points. So 16 plus 15 plus 15, ended up with, as I recall, something -- it was around 46.

Q So let's just go back to the first adjustment that you referred to, the use of the change in GMAC prices from the 12th to the 19th of September. Did you have an understanding of why they used the 19th of September, as opposed to the 15th of September, which was the early termination date?

A So my understanding was that this was a instrument (INDISCERNIBLE) that was very illiquid and was going to be -- take a while, a long time replace, and so -- and would probably be done in increments over a period of time. So they took the 19th to reflect that it was going to take a

longer period of time and that the trades would actually be happening, not all on one day, but over a series of days, maybe quite a bit more than five or six or seven or eight days -- trading days -- and they took the 19th as a proxy -- and, again, we're talking about a proxy here -- of what the pricing would be.

Q Were you or did you become aware of any quotations on the (INDISCERNIBLE) product that occurred in the vicinity of September 15, 2008?

A Well, not in September, but in August, I believe -- August 21st -- there was a quotation from Lehman, the only market maker again, at 23.

Q Let's just take a look at that quotation. Could you bring up Joint Exhibit 39? Okay, it's going to be the last page. Is this the quotation that you're referring to?

A Yes, it is.

Q And where is the 23?

A So the way that you get 23 is to subtract 77 from 100.

Q Okay. And is that your understanding of the price that Lehman would have charged on August 21st for protection on (INDISCERNIBLE)?

A For selling protection, yes.

Q And what was the significance of this pricing to you?

A Well, again, this is on the 21st, and this was at a somewhat stress time in the market, in the economy; storm

clouds were gathering, if you will. I believe that unemployment was inching up a bit. But between this time and September 15th, obviously, a lot happened -- unemployment went up, we talked about Fannie and Freddie -- but most importantly, we had the Lehman Brother's bankruptcy.

Just, I remember that day very well thinking we were going into potentially a great depression, and I have that memory vividly. And I'm not saying that anyone else thought that way, but I think other people did as well. And so we have a huge change in market conditions. So at the very least, one can say that if 23 was the right price the 21st of August, something much higher than 23 would be the right price for basically replacing 80 million of this (indiscernible) standards of 5 million over a period of time after Lehman Brother's bankruptcy.

Q And I think you said you've reviewed transcripts from this trial. Do you recall seeing questioning of QVT traders on the question of whether they reviewed remittance reports or Intex runs in connection with the (INDISCERNIBLE) valuation?

A Yes. I believe that Arthur Chu was asked a series of questions about that.

Q And do you think it was -- do you have an opinion about whether it was reasonable for QVT not to review remittance

reports and Intex runs in connection with this valuation?

THE COURT: Mr. Tambe.

MR. TAMBE: Objection, Your Honor. This goes beyond the scope off the scoped opinions. Plus the issue of remittance reports and Intex runs may have been of Mr. Chu on the stand, those remittance reports and other information was available back on September, 2008 and was available to this witness who did not look at it either. So I don't think he should be opining that.

THE COURT: Mr. Tracey.

MR. TRACEY: Well, the latter point is neither here nor there. Actually, I think it supports the point. But...

THE COURT: I don't understand. The latter point being the one that the remittance reports were available.

MR. TRACEY: And that he didn't look at them.

THE COURT: Yes.

MR. TRACEY: So would it make sense for us to approach?

THE COURT: Yeah, I think it would.

MR. TRACEY: All right.

Q Professor Pfleiderer, going back to the questions that were asked of Mr. Chu about the review of remittance reports and Intex runs. Did your review of that testimony change your opinion in any way?

A No, it did not.
Q Why not?
A Well, first of all, a remittance report and an Intex run shows sort of the in-place snapshot of where the funding is in a structured entity. Intex can also be used to forecast cash flows. So one could have taken Intex, put in various assumptions about, in this case, how people are going to repay their automobile loans, what default rates are going to be, and a number of other things. And in the end, if you turn those dials, you could get your own expectation of what the cash flows in a particular tranche would be.

But that in and of itself would not be sufficient to come up with a price, because having expected cash flows doesn't tell you what the price is. You have to figure out what the discount rate is to discount for risk. So you would have had to make additional assumptions about what that discount rate is.

So, arguably, someone could go to Intex, make a number of assumptions, including a very important assumption about what the discount rate is for the risk. And what has to be considered here, is you're doing this at a time when market conditions are really changing. And you don't have -- sitting in a room by yourself, you don't have reliable evidence without looking at the window at what the market is

pricing that risk at.

So it was entirely, in my sense -- and this is all based upon sort of knowledge of asset pricing -- just having expected cash flows, which involve a lot of assumptions, isn't sufficient for pricing. You also have to know what the discount rate is. It was entirely reasonable for QVT to not do an exercise like that, which would involve making a lot of assumptions that I'm sure would have been questioned, but rather to base it primarily, almost exclusively, on just looking at market prices of a proxy, which was GMAC.

MR. TAMBE: I guess I'll just note my objection. This is beyond the scope of disclosed opinions and (indiscernible).

THE COURT: All right, thank you. You can take it up on cross, Mr. Tambe.

Q Based on all the factors that we've discussed, have you reached an opinion as to whether QVT's valuation of its (INDISCERNIBLE) position in September, 2008 was reasonable under financial economic principles?

A Yes. I believe they sought out market information that produced a reasonable proxy in what was a very difficult pricing environment.

Q I'd like to turn to another subject. Did you become aware in your review that QVT used market partners pricing data to value a number of its positions?

A Yes. I believe they used market, or Markit Partners pricing data on about 370 of the positions.
Q And what is your understanding of Markit pricing data?
A So Markit is an aggregator of dealer notional pricing. So, for the most part, what they do is collect at the end of the day where dealers in a particular security think the market is, and they aggregate that together and produce a mid-market price. It's neither an ask or a bid.
Q And what is a midmarket price?
A So a midmarket price is arguably halfway between that offer price and the bid price. So it's not a price at which you could trade. If you call -- let's say that Markit got the price right in the sense that that's actually what dealers were producing and they're going to stick by whatever they said in terms of their midmarket price. So let's say that a 100. If I call up a dealer and say, I want to buy from you, the dealer is going -- and I want to buy it from you at a 100, that's the price that I saw. The dealer is saying, wait just a minute, we're going to charge you 105. And if I say to the dealer, okay, I'll sell you at 105, the dealer's going to say, wait a minute, I'm going to sell you at 95. That 100 was a price that's halfway in between the price that I'm going to sell you at and -- you know, halfway between the price I'll sell you and the halfway -- and the price I'll buy you at. So halfway in

between 105 and 95, for example.

Q And is that known as a bid-ask spread?

A Yes, it would be.

Q And what is the function in the market of a bid-ask spread?

A So a bid-ask spread exists for a whole slew of reasons. First of all, it's the sources that dealers profit. A lot of the lights in the city here would go out if you didn't have a bid-ask spread. That's how the dealers make part of their profits. But there's more to it than that. So a dealer who is making a market is oftentimes going to be taking some risk. For example, a dealer market is one in which a dealer might sell a position with the hopes very quickly, or relatively quickly, of taking the opposite side. So the dealer might buy from one entity and then turn around and sell, hopefully, in a short period of time, to another entity. And so, if you buy at 95 and sell a little bit later at 105, you make that profit.

The problem is if I buy at 105 and I don't find someone on the other side to take that position to sell it off at, now I've got that risk on my books. And if it's a illiquid market where it's going to be hard to find someone on the other side, I may have that risk on my books for quite some time. So in an illiquid market, the dealer quite reasonably reflects on the fact that they're going to be

exposed to more risk and they're going to charge a spread -- bigger spread -- to account for that risk.

And then there's another reason that you have a bid-ask spread. And that is, if I'm a dealer and you show up and you're real anxious to sell to me -- now, you're probably a good trader, you don't reveal that -- but if you're wanting to sell to me, I have to ask myself why are you wanting to sell. And it may be that you're just trying to close out a position, you're trying to adjust your books in hedge, but it's also the possibility that you realized that this is overpriced and it's a good time to sell because prices are too high. It's the adverse selection we talk about.

So to protect myself against adverse selection, the fact that I might be dealing with someone who has more information that I did, I'm going to slant the prices away even more, so that when I'm trading with those people, I don't lose too much. And so for all those reasons, you have a bid-ask spread. And one of the important things is, in an illiquid market, the bid-ask spread is going to be much higher, partly because of the risk that I talked about. And arguably because adverse selection, this possibility that because there's not much price (indiscernible), I might be trading with someone who's got better information than I do, is more severe in an illiquid market than what it is in a

very liquid market.

Q So you referred to the mid-price that Markit Partners gives as a mid-price that can't be transacted at. How do you get from, if you're trying to determine a replacement cost, how do you get from the mid-price to the replacement cost?

A So at that point, you need to consider what it is that you're selling and how much, and make an estimate of what you would actually be able to sell that at or buy it at. And so, you would either -- if you're buying, you would add something to the Markit price, or if you're selling, you would subtract something from that price. And you have to use some judgment as to how big that spread bid-to-bid or bid-to-offer adjustment is going to be. And as I just suggested a few minutes ago, it's going to generally be larger the more illiquid the security is.

Q And did QVT add those additional spreads to its positions in calculating its loss?

A Yes, it did.

Q And did you find that reasonable?

A Yes. They used a range of adjustments from 3 percent to 15 percent, with most of them being on the order of 10 percent.

Q And did you do any review of available literature on the question of mid-bid spreads or bid-ask spreads that

existed in 2008?
A I did in my initial report observe that there was one academic article that did look at what happened to CDS pricing before and after Lehman week, and it showed graphically that there'd been an increase in the spreads.
MR. TRACEY: Can we bring that up? This is Exhibit 5905. You don't have it? We can just look at the hard copy.
Q I think you have a book up there if you want to look at it. So can we go to the first page? Is this the article that you just referred to?
A Yes, it is.
Q And what in this article was your reference point for spreads?
A Well, in referencing this article, the only thing that I relied upon was one graph that I think was on the screen before here just a moment ago.
MR. TRACEY: Can you bring up Page 30?
A So the graph that I looked at was Panel B of Figure 1. And what this is showing -- I should set the context for this. This was the bid-to-ask spread on European CDS's, CDS's on European entities, and it was broken down to financials and corporates. I believe the financials are the ones in orange or red, whatever that color is, and the corporates, I believe, are in green.

In any event, what this shows is that during -- what it shows is what these were at various periods. And the systemic period is a period that I believe runs in the author's analysis between September 1st and, I believe, the end of March. And what you can see is, in particular in the financials, there was a huge jump in the early part of that period, which encompasses Lehman week.

And I should emphasize that this data, first of all, is for European entities. Arguably, potentially at least, the financial crisis began in the U.S., so U.S. entities could have been affected by even more. But more importantly, what I would stress is that these are entities or CDS contracts for which there was a fair about of data. This was the more liquid part of the market. But I wasn't interested so much in showing the levels here, but rather the increase in the level of the bid-ask spread.

Q And how did that bear on your opinion as to QVT's use of mid-bid spreads?

A That the assumptions that they were making that business was not usual during Lehman week, that spreads had gone up, was certainly supported by at least this one article. And I searched for academic articles that had basically gathered this data. And at the time I filed my initial report, this is the only one I was able to find. There may be others that are out there, but it was the only

one I was able to find.
Q Okay. So going back to QVT's valuation of the Markit Partner's positions. Did QVT use Markit data from the early termination date in every instance?
A No. It used -- for the most part, it used September 16th, I believe, for around 260 of those out of 370. It used some on the 15th, and some on the 17th, and a few on the -- very few, I believe, on the 18th, and some on the 19th.
Q And did you have an understanding based on your review of materials as to why the QVT traders chose those dates?
A Well, here, they used their own judgment as to when they could have traded based upon market conditions at that time and based upon the nature of the instruments that they were trading.
Q And based on your overall review of the Markit Partner's data and the information you received from the QVT traders, do you have an opinion as to whether their approach was reasonable?
A Given what I observed and what I understood, it seemed reasonable to me, again, given the market conditions at the time.
Q Let me turn to a different topic, and that is the interest rate swaps. Did you review QVT's valuation approach with respect to the interest rate swaps positions

it had with Lehman?
A Yes, I did.
Q And how many such positions were there?
A I believe that there were two positions.
Q And could you describe those positions in general terms?
A As I recall, those -- it was a, shall we say, plain vanilla standard interest rate swaps and the two positions. Whenever I say two positions, one was for QVT and one was Quintessence. So it was the same interest rate swap, but one for QVT and one for Quintessence.
Q And how did QVT value those interest rate swaps for purposes of its swaps calculation?
A My understanding is that they used the Bloomberg calculator, Bloomberg valuation tool, on using September 15th information.
Q Let me show you a document that we've marked as Claimant's Exhibit 1568. And if we could go to the second page of that. Did you review this in the course of your work in this case, Professor Pfleiderer?
A Yes, I did look at this.
Q And what does this represent?
A Well, this is the, as it says at the bottom of the main page, for the interest rate swap valuation tool.
Q And what does this tell you?

A Well, I guess various pieces of information, obviously, that are needed for valuing the swap, but most importantly, at least for this question of when the valuation was done. As you can see, the valuation curve that is about two-thirds down the page, the setting there is the 15th of September.

Q And did you determine whether this was a reasonable way to valuate interest rate swaps?

A Yes. My understanding is that this is a standard approach that would be taken for valuing interest rate swaps.

Q Okay. I'd like to turn to one last topic, and that is collateral for CDS positions. Do CDS counterparties generally provide collateral for their positions with each other?

MR. TAMBE: Objection, Your Honor.

THE COURT: Yes.

MR. TAMBE: It goes beyond the scope of his knowledge or foundation.

MR. TRACEY: I think he testified that he teaches about collateral and margin. And he had this in his initial report. It's been disclosed; it's never been objected to.

MR. TAMBE: No question of discl- -- I'm sorry, are you done?

MR. TRACEY: Yeah.

MR. TAMBE: It's not a question of disclosure.

It's a lack of any base to (indiscernible) upon that, especially given the qualifications that mentioned at the outset. He doesn't have any experience with ISDA documents or how close it's supposed to or why it's supposed to.

THE COURT: But the question was not put in terms of ISDA documentation.

MR. TRACEY: No, it's just a -- sorry.

MR. TAMBE: Listen, how (indiscernible) any collat, there's no foundation.

THE COURT: Could you ask a question --

MR. TRACEY: Sure.

THE COURT: -- that speaks to foundation.

MR. TRACEY: Sure.

Q Professor Pfleiderer, do you have any experience teaching with regard to the collateral, the placing of collateral to support CDS positions in the market?

A Absolutely. In all of the teaching that I do when we're talking about derivatives, generally speaking -- futures, credit default swaps, whatever -- where there's counterparty risk, I explain that there's a mark-to-market process. There's an initial margin that's oftentimes posted, and then a mark-to-market margin depends upon what type of...

Q Well, before you get into it, I just want to --

A I'm sorry.

Q -- what teaching you've done, what courses on this subject.

A So in any course, I think I can -- almost all courses where I would be talking about derivatives, whether they be swaps, futures, credit default swaps, you talk about counterparty risk and how that's mitigated by the posting of margin. That's something that you would routinely explain in -- maybe not the first day, but early on in the discussion.

MR. TRACEY: That's the foundation, Your Honor.

THE COURT: I'm sorry?

MR. TRACEY: I said, that's the foundation, Your Honor.

THE COURT: Yes, I agree. All right, Mr. Tambe, your objection is overruled.

Q And so would you describe, please, for the Court how that collateral process generally works in the market for providing collateral on these positions?

A Well, in the OTC market, the dealer that is involved usually has the right and responsibility to set those marks. And there's a determination of what the effect on collateral is, just as the value of the positions changes. So if it changes in QVT's favor, in this example, that would be collateral that would be released to QVT; or if it changed in Lehman's favor, that would be additional collateral that

would have to be posted. That's the general idea.

And that mitigates the counterparty risk because, to the extent that that collateral process works relatively well, the amount that might be lost by either side is lessoned. Now what collateral doesn't do is, it certainly doesn't guard against what we might call junk risk. So the collateral is set periodically, on a daily basis in most cases. And if the world changes rather dramatically over a day, as it did over Lehman weekend -- I'll call it Lehman weekend -- the 12th to the 15th, then that collateral is not -- whatever was posted before that is not going to be sufficient to cover whatever that bust would be.

The other important thing is that the collateral is basically set at a mid-mark. So we get back to what we were talking about before where it's neither a bid or an ask, if you will; it's just halfway in between in terms of what it really represents. So it doesn't reflect the cost of replacing something when you have to go in the market and pay a spread.

Q And so one...

THE COURT: Mr. Tracey, could I just ask you to pause for a minute?

MR. TRACEY: Sure.

THE COURT: Could you come up for a moment?

[PAUSE]

Q Okay? So Professor Pfleiderer, from an economics standpoint, would the collateral value of a position generally be equivalent to the value of a position upon default by a counterparty?
A No, it would not.
Q Why not?
A Partly, for the reasons that I just mentioned: One is, the collateral is set at a particular point in time, and if the replacement has to be done at a later time, the collateral mark does not reflect what the cost of replacement would be if prices had changed; and the second is, if the collateral mark is a mid-mark and the replacement is going to be done at either a bid or an ask. So for those two reasons, those alone would make the collateral mark not relevant, or not dispositive for what the replacement cost would be.
There's also the possibility that the collateral mark is not accurate in the sense that -- when I say accurate, I should probably say it a little bit more carefully. But if there's not been a lot of trading, market activity, the dealer may have very little to go on in terms of actually picking up where the market price is. So that means that, in principle -- I'm just talking in principle here -- that the collateral mark could be stale one way or another.

So those three reasons -- a potentially stale collateral mark, the fact that it doesn't account for a jump in prices, and the fact that it is not a bid or an offer, which is what replacement would entail -- means that the collateral mark could potentially provide a starting point for such a calculation, but can't be taken alone as an indication, from an economic standpoint, of what the replacement values would be.

Q Okay. And now, I'd like to basically direct your attention to the entire portfolio that QVT valued. Do you have an opinion about whether under financial economic principles, QVT's valuation was reasonable?

A Yes. I saw nothing that QVT did that was a violation that went counter to basic financial economic principles. Again, with -- I'm not going to make this a qualification, but just the observation that this is being applied in a situation of extreme distress, highly illiquid portfolio, at a time when the market is in turmoil. So there was, for example, limited market information for valuing a lot of the positions. And so what would be done in the normal course of business for fairly liquid instruments couldn't be done in a very stressed situation for illiquid instruments.

But given what they did in that situation was, in my view, consistent with the underlying economics and financial principles.

Q Thank you.

MR. TRACEY: I have no further questions at this time. As the Court's aware, Professor Pfleiderer has submitted a rebuttal report.

THE COURT: Yes.

MR. TRACEY: And we would expect to ask further questions on these and other topics when he testifies about that.

THE COURT: Okay, all right. Thank you. So this is a perfect stopping point for the lunch break. But I understand we have a hard stop at 4:30. So Mr. Tambe, I'll leave it to you. Do you want a half an hour, do you want 45 minutes? We'll do whatever you like.

MR. TAMBE: I think 45 minutes would be great, Your Honor.

THE COURT: Okay. So then a few minutes before 1:00, five minutes to 1:00.

MR. TAMBE: I assume the 4:30 hard stop still applies.

THE COURT: Yes.

MR. TAMBE: It's still a consideration.

THE COURT: Yes.

MR. TAMBE: And we'll do the best we can.

THE COURT: Well, yeah.

MR. TAMBE: We'll get it done.

THE COURT: All right. All right? So we'll see you at five minutes to 1:00. All right? Thank you.

[BREAK]

P R O C E E D I N G S

THE COURT: You scared them all away, Mr. Tambe. You have that effect on people.

MR. TAMBE: Thank you, Your Honor. I can always hide. We’ll move for a direct to verdict, Your Honor, now.

(Laughter)

MR. TAMBE: Seeing no opposition...

THE COURT: Call it a day. I don’t want you to think that I don’t take this seriously. We’ve been at this for a long time and we have a long way to go. And every once in a while a little humor lightens it up.

See, the powers of the judiciary, much as they’re in the news these days, don’t extend to --

MR. TAMBE: To jackhammers?

MS. SAWYER: They took a lunch break.

(Pause)

MR. TRACEY: Apologies, Your Honor.

THE COURT: No problem. Do you need a few more minutes, Mr. Tracey?

MR. TRACEY: No.

CROSS-EXAMINATION OF PROFESSOR PFLEIDERER

BY MR. TAMBE:

Q Good afternoon, Professor Pfleiderer.
A Good afternoon.
Q So let’s start with the high level opinion you expressed towards the end of your direct testimony, where you’ve essentially concluded that the procedures and methodologies followed by QVT were reasonable, correct?
A Reasonable with regard to the conditions at the time and general economic principles.
Q And in reaching that conclusion, you spoke with the traders at QVT, correct?
A I spoke to some of the traders, yes.
Q And you reviewed the spreadsheet, the calculations spreadsheet prepared by QVT, correct?
A Yes, I did.
Q And you referenced any number of depositions that were given in this case, correct?
A I did.
Q You did not do an independent line by line valuation of each of the positions, correct?
A That is correct.
Q And you work with the Brattle Group, is that right?
A The Brattle Group has been assisting me in all of this since the arbitration, yes. Mediation, I’m sorry, I misspoke.
Q And they’ve got about what, 2,000 hours of time into

this matter?
A I do not know.
Q And you've got about 270 hours into this matter?
A I believe that's correct, yes.
Q So, none of that's been spent on an independent valuation on any of these positions, correct?
A None of my time has been spent on that, yes, that's correct.
Q And you don't know if any of Brattle Group's time has been spent on independent valuation of these positions, correct?
A I do not know one way or another.
Q You also work with something called FSG.
COURT REPORTER: What's the name of the company?
MR. TAMBE: Brattle Group.
MR. PFLEIDERER: Brattle, B-R-A-T-T-L-E, after the Street in Boston.
MR. TAMBE: I didn't know that.
THE COURT: Cambridge.
MR. PFLEIDERER: Cambridge, that's it.
MR. TAMBE: See, all these Cambridge jokes, I just -- I'm an outsider looking in.
THE COURT: Sorry, you're just not a member of the club.
MR. TAMBE: Absolutely, I'm not. I'm reminded of

that many times.

Q And you also work with a group called the FSG, correct?

A I did prior to the mediation.

Q Okay. And I take it FSG didn't do any line by line valuation of QVT's positions correct?

A Again, not to my knowledge, they did not.

Q Now, and other than the traders, some of the traders of QVT, you didn't speak to traders at any other entities to inform your opinion as to whether QVT's methodology was reasonable, correct?

A That is correct.

Q And you didn't speak to all the traders at QVT either, correct?

A I believe I spoke to most of them but I don't believe I spoke to all of them.

Q But you didn't speak to Mr. Knox, I take it?

A I don't believe I did.

Q All right, but you heard him testify?

A I did hear him testify here a couple days ago.

Q And you didn't speak to Mr. Cen.

A I do not believe I spoke to Mr. Cen.

Q You did speak to Mr. Chu frequently, correct?

A Very frequently, yes.

Q And Mr. Wollman?

A Yes.

Q When it comes to some of the positions that you spend more time talking about, the PCDS positions, you did not speak to any other dealers in the market about how they valued PCDS in and around Lehman week, correct?

A Well, again, my understanding was that Lehman was basically the only dealer that was actively making a market, and so once Lehman had, I don't know if the right word is expired, but once it ceased to do business, there wouldn't be anyone to speak to.

Q The question's just a little bit different. You did not speak to any other dealers in the market about how they valued PCDS in and around Lehman week, correct?

A I'm sorry. I interpreted your statement to be dealers in PCDS. But if it's more generally dealers without regard to whether they were making markets in PCDS, the answer is no, I did not.

Q But you know there were other dealers in the market who had PCDS positions on the same side of the market as QVT, correct?

A My understanding is that Merrill Lynch had a position but I don't know the details -- all the details about that.

Q So as far as you know, with all the work you've done and the few thousand hours from the Brattle Group, the only other dealer that you're aware of that was in the market and had a position on the same side as QVT is Merrill Lynch, is

that right?
A No, that was -- I knew that Merrill Lynch had some positions; I don't know the full extent of what dealers had positions. So I should have qualified it by saying that.
Q And you gave a tutorial on how a dealer would hedge a PCDS transaction in this terrible post-Lehman world. Do you remember, we went through a demonstrative, right?
A In the situation where it could offset the risk with another entity on the other side.
Q But you didn't talk to any dealers who actually had PCDS risk as to how they went about valuing their PCDS positions post Lehman, correct?
A That is correct.
Q And you yourself, just to be clear, you have no prior experience or expertise in trading any credit derivatives, correct?
A That is correct.
Q And no particular experience in valuing PCDS certainly, correct?
A Not as a trader or as a dealer, no.
Q And your analysis did not include looking at how dealers had historically hedged their PCDS exposure, correct?
A Yes, that is correct.
Q But you knew generally from Mr. Chu that dealers sort

of took long and short positions to offset their risk, correct?
A That is my understanding of what dealers mainly do in a marketplace where they're making a two-way market, yes.
Q And with respect to how a dealer in PCDS would behave, that's the sole extent of your knowledge about what a dealer would do, correct? In the pre-Lehman world?
A My understanding about dealers who make markets in OTC market is that they're generally keeping a book with traders with positions on both sides, yes.
Q So, for example, you did not inquire to see if in the pre-Lehman world, dealers were using shorting of preferred equity to hedge PCDS protection they had written, correct?
A The answer is no, I did not do that.
Q And you didn't look to see if dealers had used, instead of preferred equity to hedge their risk, whether they used senior or subordinated debt of the same issuer, correct?
A I didn't look explicitly at that, no.
Q Again, with respect to the extent of your work on CARB, other than speaking with QVT's traders, you didn't speak to any other participants in the market about how they valued their CARB positions, correct?
A That is correct. Again, my understanding, at least in terms of the overall market at the Lehman filing was that Lehman had about 85 percent of the total notional at that

time.

Q But you knew at least there were folks who had the other side of the position form QVT, correct?

A Well, mediated through Lehman, yes.

Q But there were folks facing Lehman from the other side?

A I don't know that for certain but my understanding would be that would be the case because, again, that's what Lehman would do in making a market -- a two-way market.

Q Right. So you didn't -- are you done?

A I'm sorry. I just qualified it by saying a two-way market.

Q And with that expectation, you didn't ask for the identities of the folks who were on the other side of the market, correct?

A That is correct.

Q And you could've gone and asked those folks on the other side of the market in CARB how they valued their positions, correct?

A I would assume... So, I did not ask but I would assume that they would be using Lehman's marks as well for collateral and for various things of that sort. But I did not ask anyone whether they had some particular way of valuing it.

Q And you have no way of knowing how they valued their CARB positions after Lehman had failed, correct?

A That is correct.
Q Same is true for PCDS?
A That would be correct, yes.
Q We'll come back to CARB in more detail but just again in terms of the work you did or didn't do, the GMAC proxy, do you remember that discussion?
A Yes, I do.
Q You didn't do any independent analysis to see how QVT's contention that GMAC was a good proxy for CARB, you didn't test that assumption in any way, did you, sir?
A Well, the question is how you would go about testing it. You couldn't test it necessarily historically because now you're looking for a good proxy in a market situation where you're entering into a financial crisis. So, one of the problems we have in finance is how do you use historical data to value something in a very different market condition? So, I don't know exactly how one would go back and get historical data on what would be a good proxy for a situation in a Lehman week, for example, when the market was very much stressed.
Q My question's very specific and you have a plane to catch, right? So, I'm going to ask my question again.
A Sure.
Q You didn't do any independent analysis to see how QVT's contention that GMAC was a good proxy -- you didn't test

that assumption in any way, did you, sir?
A I did not test it, no.
Q You didn't, for example, look back at GMAC and CARB to see if, in fact, they had been closely correlated in the prior months?
A And for the reasons that I was trying to explain.
Q You didn't do it?
A Well, I did do it. That's correct.
Q And generally for all the various positions you looked at and opined on, you didn't do any kind of empirical analysis of valuations or prices in the OCT derivatives market for the time in question, correct?
A Well, I need to answer that question carefully because I have done some empirical analysis for my rebuttal report on various issues, and I understand that I'm to talk only about my initial report. So if it's confined to that, I believe for my initial report I did no formal empirical analysis.
Q Okay. And it is directed to your initial report and you should answer every question carefully.
A I was trying to do that, yes.
Q Right. You had some testimony on direct about collateral and security in derivatives transactions generally, correct?
A Yes.

Q You didn't ask to speak with QVT's auditors, did you, sir?
A I did not.
Q You know that in addition to the collateral remarks there were audited month-end valuations on QVT's books as of the end of August 2008, correct?
A I believe that is the case.
Q And it's not your opinion that those were false, is it, sir?
A I have no opinion.
Q As far as you know sitting here today, QVT valued its positions exactly right as of the end of August 2008?
A I -- as a financial economist, I wouldn't know how to value -- what the term "exactly right" means. In the case of accounting, there is a notion of exactly right, but as a financial economist, I wouldn't know what exactly right means.
Q It could depend on the economist?
A I'm sorry?
Q It could depend on the economist?
A Well, there's always some disagreement about what valuations would be, and that's in part why you have a market.
Q Putting aside what debate there could be about what valuations could be, QVT did put a value on each of its

positions as of the end of August 2008, correct?
A I believe they need to for basically calculating NAV, they need to put a value on their positions.
Q And those are audited valuations, correct?
A I believe that is correct.
Q And investors who invest in QVT rely on those valuations, correct?
A Rely in the sense that they take those valuations as the outcome of the process of marking to NAV and know -- I would assume in most cases and I certainly understand that NAV in a lot of cases is not a precise value in the sense that it relies on information that is subject to some judgment.

So it's relatively easy if I have a portfolio that's composed of just Google stock to get a very accurate market forecast. Back in the Barclays matter, there was a difficult in determining the value of illiquid securities. And a value is assessed by an accounting process, but I wouldn't say that that is necessarily the value that you could trade it.

So, I want to be careful making a distinction between a market-determined value in a very liquid market and a mark to market process in calculating NAV that relies on information that in some cases is not as accurate as what you get in a very liquid market.

Q So, take all the care you want, but I only request you answer my question. And my question to you was investors who invest in QVT rely on those valuations, correct?

A Well, I would have -- the reason -- the reason I'm being somewhat slow to answer this question is I don't know when you say "rely" what you mean. Did they take those as absolutely precise, or did they take those as an indicator of value? So, they look at those and they understand that that is the calculated NAV.

Q So, close enough is good for audited financial statements? Is that what you're saying?

A Audited financial statements need to be done as well as they can but they're not necessarily, depending upon the underlying securities, going to be accurate to the last decimal place.

Q And you're not saying that QVT's financial statements were inaccurate in any way as of the end of August 2008, are you, sir?

A I'm not opining one way or another.

Q Just as we round up what you did and didn't do, you're not relying on any of the work done by CMRA and Dr. Niculescu in any of the conclusions or opinions you're expressing in your original report, correct?

A That is correct.

Q The folks at Brattle who were supporting you, when you

were reviewing the QVT claim spreadsheet, you didn't send them out to Bloomberg or Market to double-check the values that QVT was reporting, correct?
A I did not personally ask them to do that. They may have done that but I did not personally ask them to do that.
Q They may have done all sorts of things, but as far as you know, they didn't?
A I can only testify here to what I asked them to do or what I know that they did by seeing some work product.
Q And you didn't fire up the Bloomberg terminal yourself and go double-check any of QVT's prices?
A I did not.
Q But you did go into Google and look at some information, right?
A No, I don't believe I did. Not in conjunction with any of QVT's claims.
Q We'll again return to PCDS and CARB in greater detail, but you talked in general about the lack of liquidity in those products. Do you remember that?
A I do.
Q And you're not saying that those products became suddenly illiquid on September 15, 2008, are you, sir?
A Oh, no. They were illiquid before and potentially became more illiquid after, but there wasn't a jump to illiquidity from complete liquidity.

Q And in terms of the PCDS market, we will again talk about the details of this, you never did any analysis to see how large the market was for preferred equity issuances by those 19 issuers that had -- that were the reference obligations, correct?

A Again, I'll make the qualification. Before the filing of my initial report, I did not; before my rebuttal report, I did.

Q So, in informing the judge about the reasonableness of the PCDS methodology in your initial report, and it was a reasonable methodology, you did not do any analysis into the size of the preferred equity market, is that right?

A No. Again, with the qualification that I did something afterward but, no, not before.

Q You touched briefly upon market quotation. You're not expressing any opinion on whether QVT ran a reasonable market quotation process, are you, sir?

A Reasonable for the purposes of ISDA? I'm not specifying anything in terms of ISDA requirements.

Q And in terms of market practice, you have no experience in running market quotation processes for any purpose, correct?

A That is correct.

Q While we're on the topic of market quotations, you were discussing a scenario in the bid-ask discussion we had, and

you said, well, one of the components of the bid-ask spread is dealer profit, right?
A That is correct.
Q And then you had an explanation for saying, well, the other thing that's included in the bid-ask spread is the risk the dealer faces when it enters into a buy, and then has to wait to make the sell, right?
A That is a risk.
Q That is a risk, right? And that risk would be heightened at the end of a trading day, correct? Because now you have overnight risk?
A There would be overnight risk, typically.
Q So when you ask for pricing information from a broker or a dealer, the time of day you make that request could factor into whether you get a quote or how wide the quote is if you get one, correct?
A That in principle is correct.
Q You're not opining that it was reasonable for QVT to have simply missed at your last count 44 transactions from the market quotation process, correct?
A I don't believe that... I'm having trouble answering that because as a financial economist, that's not a question I can answer. So perhaps I should just say that.
Q They just missed it?
A I would understand that errors would be made in a big

process like this over a short period of time, but that's not an opinion I'm offering as a financial economist.

Q Right. And as an expert witness in this case, you didn't examine what care QVT did or did not take in conducting the market quotation process, correct?

A No, I did not. Other than what I learned through testimony, I didn't do any independent evaluation of that.

Q Okay. So, let's go into bid-ask spreads, all right? And you talked generally about having reviewed the spreadsheet and seeing that range of 3 percent to 15 percent. Do you remember that?

A I do.

Q Okay. And I think you said the vast majority of the adjustments were 10 percent adjustments.

A I believe the preponderant number was 10 percent, yes.

Q So, let's just pull up the spreadsheet. So we're looking at what adjustment you're referring to. So it's Exhibit 21...? It's going to come up in native form. And maybe we can sort this for market...? And it'll probably be... You can start with Joel Wollman, JW in Column BC?

A Column BP.

Q BP?

A BP I believe.

Q Thank you. Now let's scroll back to the left. If you want to go somewhere else, Professor Pfleiderer, just tell

us. We will go anywhere you want on the spreadsheet. Now, we've got to go a little bit right. A little bit more right. And stop there. Right, so we've got Columns B and W up on the screen. Those are the relevant columns when you're talking about a 10 percent adjustment or a 15 percent adjustment, (indiscernible) percent adjustment, right?

A Yes. Column has the bid mid spread that was applied.

Q Okay. So, I want to just get the terminology right, because people talk about points and spreads and percentages. Right? You understand Column W is a column percentage -- percentages, correct?

A That is correct.

Q And it's a percentage that's either added or subtracted to the mid, correct?

A To the mid spread, yes.

Q Okay. So just so we are all on the same page, if the mid is at 100 and you make a 10 percent adjustment, you're adding and subtracting 10 points?

A Yes.

Q But if the mid is 10 and you're adding or subtracting 10 percent, it's one point?

A That would be correct, yes.

Q Okay. Can you put a demonstrative just to make sure we've got this concept? We're going to put it up on the screen.

MR. TAMBE: This doesn't have an exhibit number. It's a demonstrative.

THE COURT: Okay, thank you. Should we mark it, though, as something?

MR. TAMBE: We're happy to mark it (indiscernible).

THE COURT: Do you have one for Mr. Tracey? We can just --

MR. TRACEY: I don't have one. And I would just remind counsel that we have a stipulation where we have agreed that demonstratives for exhibits will be provided in advance of the testimony. So, it's fine. I don't have any objections to using this now but in the future I'd like to do that.

MR. TAMBE: Obviously, the stipulation, that's not ringing a bell, but (indiscernible) so I'm happy to do that. And is there a time limit, like 24 hours in advance?

MR. TRACEY: There's no time limit. It's just before. And we can --

MR. TAMBE: We're happy to.

THE COURT: Okay. All right. So let's just mark it as something.

MR. TAMBE: As something.

WOMAN 1: 5970

MR. TAMBE: 5970.

THE COURT: 5970. Are we using a DX?

MR. TAMBE: EX. I think it's...

WOMAN 1: EX.

THE COURT: EX? Okay.

MR. TAMBE: Yeah, exhibit... And it's just a demonstrative.

Q So I've got a demonstrative up there, Professor Pfleiderer, just so we can agree on some concepts, right? So it's completely hypothetical, pre-Lehman, you've got a bid and an ask of 4 versus 5. Right?

A Correct.

Q And that would imply a mid of 4.5, correct?

A That is correct.

Q And a bid-ask spread of one point.

A That would be correct, yes.

Q Right. And then if you were doing a percentage, a bid-ask over the mid would be one divided by 4.5, correct?

A That is correct.

Q About 22 percent?

A I believe the math works out, yes.

Q Now we get into the post-Lehman world and the spreads get larger. The bid is 40, the ask is 50.

A Correct.

Q The mid is still -- is 45, right?

A Yes.
Q The higher mid. The bid-ask is, in points terms, 10 points wide, correct?
A That is correct.
Q But in percentage terms, it’s still 22 percent?
A That is also correct.
Q Okay.
A Per this example.
Q Right. So just because you have increasing spreads and a rising mid doesn’t necessarily mean that the bid-ask as a percentage of mid is necessarily going to go up, correct?
A That is correct.
Q Okay. And what QVT was adjusting for was that percentage at the bottom. In fact, it was the mid versus -- the mid as a percentage of the midpoint, correct? It’s the mid bid adjustment as a percentage of the midpoint?
A That is correct.
Q Okay. So, in your original report you had a discussion of bid mids and you spoke on direct about a particular academic paper that you had cited, correct?
A Yes, that’s correct.
Q So, let’s just pull up that exhibit. I believe it’s 5905. And you can see on page 1. That’s the paper, correct? The paper by Mr. (indiscernible).
A Yes, that is correct.

Q These aren't folks that you've ever worked with before, correct?
A That's also correct.
Q And at least when we spoke at your deposition, you didn't even know if this had been published anywhere, correct?
A I don't believe it was published at the time and I haven't checked to see if it's been published now.
Q Okay. You're not aware of any prior work by these two individuals, correct?
A I -- sitting here today, I'm not.
Q And I think you made the point that in citing this report, there was really only one part of this report that you were focused on, correct?
A That is correct.
Q And that's the panel you discussed with the judge, Figure 1, Panel B, correct?
A That's correct.
Q It wasn't any of the other analysis done on this case?
A That's correct, it was not relevant to my opinion.
Q Now, that was not a paper you cited the first time you submitted your original expert report, correct?
A No, I believe that was included in an amended report that I filed or submitted. I don't know what the terminology is.

Q So I think if you turn in the book I handed you, and we can pull it up on the screen -- Exhibit 5963... You recognize that? That's an errata you submitted related to your original report, correct?

A Yes, that is correct.

Q And on Page 2, you have some changes to other parts of the report but you state on Page 2 "The following text should be appended at the end of Paragraph 95 on Page 44 of the report." Do you see that?

A I do.

Q And there's a new footnote that's added, that goes along with that new verbiage, and that's the (indiscernible) cite, correct?

A That is also correct.

Q So, it's not part of your original analysis when you put in your original expert report, but I assume before we talk at your deposition you amend your report to (indiscernible), correct?

A That's my recollection, yes.

Q Because you thought this was helpful and relevant to the Court in assessing the reasonableness of QVT's methodology, correct?

A Well, I thought that it was an academic study that showed substantially a change in the market during what I think we've referred to as Lehman week or during the months

of September. So, that was pretty much what I was putting it in for.

Q So let's go to the page, Page 30 of this report. And the figure that you cited, and relied on, and discussed in your direct was the middle figure, correct?

A That is correct.

Q And if you go back to our demonstrative, if you want to draw a parallel, what that calculation is showing is the mid value in points, correct?

A The absolute amount, yes.

Q The absolute amount.

A That's correct.

Q Now, we discussed this at your deposition as well. This chart doesn't tell you what September 15, 2008 is, correct?

A That is correct.

Q And there's data -- there's a dataset that underlies this report?

A There is.

Q You never asked for that dataset at the time you did either your original report or the amendment to your original report, correct?

A I asked for it subsequently, yes.

Q Subsequently. Yeah, I know. But at the time you amended your original report and drew the Court's attention

to Panel B, you were not using the dataset that underlies the sticker, correct?

A I didn't have access to that at the time. That's correct.

Q The authors do describe the dataset they used, correct?

A I believe that they do, yes.

Q And they talk -- it's Data Screen is the source?

A I'd have to go back and look.

Q So, certainly at that time, before you amended your original report, you could have obtained the dataset, correct?

A I'm not sure what the timing would be. So, at the time I came across this article, I saw that this was relevant. It was an academic study that had gathered some data and produced it in graphical form. And I don't know how long it would've taken to get the data and to do the analysis. It may have taken very little time, it may have taken a long time. I didn't consult with Brattle Group -- they would've been the ones to do it -- how long that would've taken.

Q So, without the data group or without the dataset, you did the best you could, right?

A I'm not sure what you mean by best I could. I presented, as we often do -- I see graphs of this sort all the time in academic papers and in seminars -- I presented a graph which contains a lot of data behind it. I didn't have

access to the data at the time. I subsequently got access to the data but I'm afraid I can't talk about that right now because it was related to sometime afterward. But I can inform the Court about that at a subsequent time -- that backs up the statements that I was making with relevance to this graph.

Q And we discussed this at your deposition -- the point on that graph that represents September 15th is a little hard to discern, correct?

A It's not marked. Just for the record, I don't remember all the details but I do remember that the period in question is the systemic period, and the line that is being drawn here on the left hand side I believe is September 1st or August 31st. It's the end of August or the first part of September.

Q Well, just to be clear, the line we're talking about is not the first gray line; it's the second gray line, right?

A Well, it's the beginning of the systemic period. It's referring to the systemic period.

THE COURT: I'm sorry, what is the second --?

MR. PFLEIDERER: I'm sorry...

THE COURT: Mr. Tambe, maybe you could --

MR. TAMBE: Even better. I've got a yardstick, Judge.

THE COURT: Well, I just want to know which gray

line you're talking about for starters. Whatever you folks like.

MR. TAMBE: Do you want me to approach or do you want to take the yardstick?

MR. PFLEIDERER: Well, I think it's easy just to say that what these authors did was they gathered a lot of data on European CDS contracts --

THE COURT: Right, but I don't understand what the XX is, okay?

MR. PFLEIDERER: Oh, I'm sorry. Okay, that's important.

MR. TAMBE: Sort of.

MR. PFLEIDERER: So, it actually represents dates. It's not terribly well done I will admit, but again, this is what was available to me from these authors. So, 01-01-06 is January 1, 2006. 01-01-08 is January 1, obviously, 2008. And what they were looking at was how bid-ask spreads had changed in various periods.

THE COURT: Sure. I'm just trying to understand it. So the next vertical gray line is -- what's the date, September?

MR. PFLEIDERER: I don't know. I'd have to go back and look in the article what the first line is. But the second line, that is the beginning of what they called the systemic period. That's September 1st, to the best of

my recollection. Either that or August 31st.

THE COURT: Thank you.

MR. PFLEIDERER: I'm sorry.

Q And so the systemic period starts right around September 1, 2008 and ends on what date?

A I'd have to go back to look to refresh my memory but I believe it was the end of March, maybe the beginning of April. But I'd want to check that.

THE COURT: '09?

MR. PFLEIDERER: Of '09, yes. I'm sorry.

Q So that's covering, what, like about a six-month period in that?

A Approximately so, yes.

Q And when you saw that data and you had it up on your screen in your office, you held a ruler up to it, right, to try and figure out where September 15th was?

A That is correct.

Q Right? And, in fact, at the deposition you held up a yardstick and you walked up to the screen, you measured the distance, and figured out where September 15th would be. Right?

A Approximately, yes.

Q And you can do that now, correct?

A I would have to make some calculations. We'd have to go back and look at what those dates are. I'd have to put

my cell phone on and turn on the calculator to figure out what the fraction of the period is. And then I'd have to -- which we did in the deposition -- then I'd have to take the ruler and do that.

Q Right.

A So, I could do that. Again, I've forgotten the data, so I can answer these questions much more directly with the data at hand.

Q And you recall from having done that at the deposition that September 15, 2008 is in the top of that orange spine. If I can approach?

A Yes.

Q It's not up here, is it?

A I... Again, with the data we could look carefully at that. I'd have to go back. It was near -- it was near the top; I don't know if it was at the top. I'd have to go back and... The easiest thing to do is not to use the yardstick; it's to look at the data.

Q Well, the data would have been good to look at but that's not what you looked at when you amended your report to cite to this document, correct?

A I did it subsequent to that, yes.

Q Right. In fact, all you had done with the data at the time you amended your original report to include this article was hold up a ruler to a computer screen, correct?

A At the time, that's what I did, yes.
Q And that's the only panel you focused on, correct?
A Well, I'm not sure what you mean, focused on. I looked at -- I obviously did this graph. What was relevant to looking at what was happening at the time at QVT was having to replace a portfolio CDS is a period of time in that systemic period, so I focused on that. But I certainly looked at the entire graph. But the focus was on the systemic period.
Q Do you remember the deposition you gave on November 14th? We talked about this. I'm not sure if a copy of the deposition is in your binder. If it is --
A Yes, it is.
Q So if you can go to Page 80 of the deposition.
A Is this in my binder or not?
Q It should be in your binder, yes. At the very end.
A At the end. I'm sorry.
THE COURT: Page 80 running or Page 80 of the mini-script?
MR. TAMBE: Page 80 about the mini-script. The small square pages. And we can pull up the transcript up on the screen if that's easier for you to read, Professor Pfleiderer.
Q Now, let's to start reading from the bottom of Page 80 over on to Page 81. At the very bottom of Page 80, Line 25.

"Question: Do you know anything about (indiscernible), who are the authors of this paper, other than the fact that they have this working paper? Answer: I believe that I did look at information about their affiliation, but I want to emphasize here that I'm not relying on the analysis that they're doing in this paper. What I'm relying on, and I want to be very specific about this, I'm relying on Page 30, Panel B of Figure 1, which I take to be descriptive of the information that they had gotten." I asked you those questions and you gave me those answers, correct?

A That is correct.

Q Let's take a look at Panel C on Figure 1. So those same authors in the very next panel do a different type of panel. They actually look at the bid-ask spread relative to mid quote, correct?

A That's correct.

Q All right. And that's in percentage terms, correct?

A I believe it probably is, yes.

Q And in percentage terms, that's a very different picture than what Panel B shows you, which is the one you focused on, correct?

A Well, it's different in the following sense. It shows again that there's a substantial effect during the systemic period, but what's happening here is pre-crisis the spreads were very, very low. And so the way this works is that

dealers will have probably a minimum spread just to make their profit. And so if the spread is very low, then I'm dividing that minimum spread by a very low number. So that's why you see pre-crisis it's quite high.

But this tells the story as well for what's important for the matter at hand, which is what happened to spreads, either absolute spreads or the percentage spreads, and this comports to both parts of your demonstrative: What happens during Lehman week? What happens during the first part of September?

And so it's showing that -- these two in tandem show two things that are happening. Panel B shows that the absolute spreads are going up remarkably, but that's partly because the spread itself, the mid spread is going up. But Panel B -- or Panel C shows the percentage, which is what QVT ultimately takes here, is also going up.

Q And the increase in the mid-price, correct, that's already captured by the Markit Partners midmarket price, correct?

A That's correct.

Q Okay. And this red line and green line that we see in Panel C, that's not the mid bid spread as a percentage of mid; that's the bid-ask spread as a percentage of mid, correct?

A I believe that's what they would've calculated, just as

they did, I believe, in Panel B.
Q So you then, in fact, have to shift these (indiscernible) down in half if you really want to see what was going with the mid bid spread as a percentage of mid at the relevant point in time, correct?
A Well, what I'm looking at here is the change in the level. And in this case it's the level of the percentage. So, whether you divide it by half or not, what you're seeing is that there's a big increase over the beginning of the systemic period, which includes the Lehman week.
Q So let's go to Panel A on the same chart. And just to be clear, credit spreads continue to widen after September 15th, correct?
A That is -- that is correct, yes.
Q So, if you are looking at midmarket pricing from, say, 9-16, or 9-17, or 9-18, or 9-19, that reflects the rising credit spreads after the early termination date, correct?
A Well, you'd have to look at it a little bit more closely to see what exactly is happening here. And, again, I have the numbers for this and it's much easier to look at the numbers than to look at the graph. But what was happening during the systemic period was risk was accumulating, there's no doubt about that, as a general proposition.
And what you can see is, now that we're looking at

it, a rather interesting story. It first hit the financial sector and then spilled over into the real economy, and that's what you see in the green line with the non-financial.

Q Right. And you know from having looked at the data that, in fact, the credit spreads continued to widen after September 15th for the rest of that week of September 15th, correct?

A I -- again, I don't have the data in front of me but I have looked at that data.

Q I'm not saying it would be true with respect to panel C, if you just go back down panel C, which is the percentage panel. Again, all you had was your ruler at the time. But even as a percentage terms, bid at spread, as a percentage of NID, continued to increase after September 15th, correct?

A Well, I'm not sure. Again, we ... it, it's difficult to do this without having the data. The data would show you exactly what was happening one each day, at least as recorded through this dataset. But what you can see is that in percentage terms, the, I believe it's the financials, which are the orange, are rising and then falling a bit -- this is in percentage terms -- and then for the non-financials, it seems that they rise and stay steady, with some variation, around a higher level. I mean that's who I'm interpreting the graph.

Q And when you judge the reasonableness of QVT's various methodologies, did you try and put, on any of these graphs, the point in time when QVT submitted its valuation statement?
A Well, first of all ...
Q The question is, did you put on these graphs, a point in time when QVT submitted its valuation statement?
A I'm not sure what you mean by put on these graphs. I just, I just submitted the ... again, I'm having trouble answering your question. If your asking, did I look at particular points on this graph that relate do different days in Lehman week, I believe that I looked at that in terms of when I looked at it with a ruler, to measure it, to the extent that you could. And then, of course, as I said, I got further data and so, can, can do that more precisely.
Q Question wasn't about Lehman week. My question was, did you look at that data, with a ruler or with a dataset, as to what the state of the markets, this data was, on 10/15/2008, when the calculation statement was submitted?
A I see. So, you're asking, on the particular date, 10/15, again, I'm able to do that with the data. I wasn't able to do that with this particular graph.
Q Not a question whether you were able to do it. Did you do it?
A I did do it with the, with this particular graph

because I wasn't able to do it precisely. (Indiscernible) I'm sorry, I wasn't able to do it with this particular graph because I wasn't able to do it precisely.

THE COURT: I'm sorry. Now, I'm confused about the answer. So, we're differentiating between what you were able to do, solely with ... based on the graph, versus what you could do more precisely, so to speak. I don't know if that's the right statistical term, but with the dataset?

MR. TAMBE: That's correct.

THE COURT: So, when you did your opening report, you didn't do have a dataset, you only had the graph.

MR. TAMBE: That's precisely right.

THE COURT: So, Mr. Tambe is asking you, at that point in time, just on the graph, did you attempt to draw a vertical line on ... for 10/15, which is the date on which QVT submitted its calculation statement?

MR. TAMBE: And the yes-and-no answer is no, and the reason is that you couldn't do it precisely because the graph wasn't that precise.

THE COURT: But my question to you is, did you not do it because you thought, oh, I would I really like to do that, I wish I had the dataset? Or did you simply not do it because it wasn't part of the analysis that you undertook at that time with respect to your opinion as to the reasonableness of what QVT did as of the time it submitted

its calculation statement?

MR. TAMBE: I think, looking back on it, if I could have precisely identified the 15th from the graph, I would have reported that, perhaps. I couldn't precisely, because of the nature of the graph, determine what was the 15th and what was the 16th, so I didn't do that. I don't think I was thinking about doing it for each day at the time, though.

THE COURT: Mr. Tracey is going to now object to my question.

MR. TRACEY: Well, I'm not going to object to it, but I do think maybe there's a misunderstanding here because I don't know that it's been established that the witness even knew what they ... can I approach?

THE COURT: Yeah, I think that that would be a good idea. Did I confuse things?

PAUSE

MR. TAMBE: I think we have a way forward.

THE COURT: Hold on one second. I think, Jamie muted the line while she's negotiating over the jackhammers. We'll just start it up and I'll (indiscernible) the line when we, when she comes back. It's okay, you can go.

MR. TAMBE: In all your conversations with QVT and looking at the analysis that had been done by QVT, did QVT tell you when they actually submitted their statement of

calculation to Lehman?

MR. PFLEIDERER: I'm pretty sure I knew that because I think, in preparation for the mediation I knew some of that chronology. I wasn't paying particularly close attention to it because it wasn't, at least at the time I was hearing that, it didn't seem important for what I was tasked to do.

Q And generally, is it your recollection that it was about a month after the early termination date that the statement, the calculation statement was submitted?

A I think it was sometime mid-October, maybe October 15th.

Q The question simply is, back when you first came upon this graph and this article, decided to add to your original report, did you look at panel A or panel B or panel C and say, let me see where October 15th lines up on this?

A I did not ask that question, no.

Q It wasn't relevant to your opinions or conclusions, correct?

A Well, as I would understand it, replacement transactions were not made on October 15th. It was just the submission of the claim. So, unless I'm told that the market conditions on October 15th were important for determining the size of the claim, I wouldn't understand why you would look at October 15th ?

Q Back to my question ... you didn't look at, where October 15th (indiscernible)?
A That is correct.
Q And that wasn't germane to your, the opinions you're expressing in this case?
A Again, because I wouldn't understand why October 15th, the market conditions there, were relevant to the cost of replacement.
Q The ... I think you made a statement about, as I understand it, replacement transactions were not made on October 15th. You just said that a few minutes ago.
A I may have misspoke, so I should clean up the record here. I'm sorry. What I understood was that QVT did, obviously, some replacement transactions, but then in calculating its claim, was calculating what it would have cost to replace those transactions during the first few days of what are called Lehman week, or over Lehman week. Mostly those calculations were done on the 16th, so, of September, I believe, in terms of market pricing, mark IT pricing. So, I don't know, sitting here now, why I would look at October 15th, which is, I understand it, is the date that they submitted their claim as being relevant to what was happening at the time they would be calculating the cost or replacement.
Q Now, no part of your analysis or initial report,

conducts any, contains any opinions about what transactions QVT intended to replace, correct?

A I don't believe so, no.

Q And there's no analysis or description in your initial report about QVT telling that they wanted to replace, correct?

A I don't believe I addressed that.

Q Let's, let's talk a little bit about, in a little bit more detail, about the discussion you had before lunch about collateral. Correct? And you address collateral in your original report, correct?

A That is correct.

Q And when you were testifying on direct, you made a distinction, you said it's not that collateral is not relevant, it's that it's not dispositive. Is that right?

A I may have said that. Yes, I believe I did.

Q And in fact, it would be a good place to start if you were doing a valuation, to see how the market conditions have changed from the last time collateral was calculated, through the early termination date, correct?

A In some cases it might be a good place to start, I agree.

Q And no part of your analysis took into account, starting with the collateral calculations from September 11th, and seeing how the market had changed through

September 15th, 2008, correct?
A I would have to go back and verify that that's absolutely true. But, to the best of my knowledge, I don't believe any part of my analysis about that.
Q Now, you were aware that QVT was doing its own margin calculations on a daily basis, correct?
A I believe that that was the case. That's my understanding.
Q And from time to time you've seen evidence of information being exchanged between Lehman and QVT, pre-bankruptcy, about what the marks were, correct?
A I have a recollection of, of seeing that. Right now I don't remember the details.
Q And you don't ... you, you do recall instances where there were some differences?
A I believe that's the case. Again, I don't remember the details.
Q But you don't recall any situations where QVT and Lehman had such a significant misunderstanding that they initiated the dispute resolution procedures under the contract, correct?
A All I can say is I don't recall.
Q Now, I think you testified that as September rolled on, credit spreads widened, correct?
A That was generally true, yes.

Q And your expectation would be that the positions that QVT had on with Lehman became more valuable to QVT, correct?

MR. TRACEY: Objection, Your Honor, there's no timeframe on this.

THE COURT: Fair enough.

Q In September, it was your expectation that the positions that QVT had on with Lehman became more valuable to QVT.

THE COURT: Over what time period?

Q From the first of September through the 14th of September.

A But I have to be very careful in answering this because QVT had positions that were long, purchasing protection, and they also had positions in which they were selling protection. So, when ... and let's just take it for a moment, it's given that spreads are widening over this period of time, then the QVT positions where it was long protection, those would increase in value, but the positions where QVT was offering protection, those would basically decrease in value, because that would be Lehman's gain that they were paying ... that they were basically paying a small running spread in conditions that worsened. So, we can't make a global statement.

Q Yeah, but you'd know enough about the portfolio here to know that overall, QVT was long protection, right.

A Overall, it was long protection. I was just saying that position by position, you can't make that statement.

Q And you also know given your teaching of collateral and margin requirements and in your courses, that collateral is posted on a net basis, correct?

A That would be generally correct, yes.

Q And that's our understanding of what happened here, correct?

A I believe that was what was done.

Q And have you examined what happened to collateral posting after Fannie and Freddie, as between QVT and Lehman?

A I don't believe I examined that, no.

Q And as a financial economist, your expectation would be, given the shock of Fannie and Freddie, that Lehman would posting collateral to QVT, correct?

MR. TRACEY: Objection Your Honor. I, I don't think there's any foundation for what positions are being discussed here.

MR. TAMBE: All the positions between QVT and Lehman.

MR. TRACEY: Well, I'm going to object on the grounds of vagueness. I, I don't quite know what the question is.

THE COURT: I'm just taking a moment to try to think about what the direct was. And the direct was

generally with respect to a general understanding of the requirement of posting collateral in CDS transactions right?

MR. TRACEY: It was jus the economic, the economic structure of collateral. IF there was nothing about QVT and the witness didn't express any opinions on the specific collateral relationship between QVT and Lehman, he just gave economic principles that are to guide the court. I have no objection to cross-examination, but I think asking a witness who hasn't studied a specific relationship, asking a witness who hasn't studied a specific relationship, and hasn't expressed any opinions on it, it's outside the scope.

MR. TAMBE: That's fine. If I can move on? Maybe just a clarification question for Professor Pfleiderer, you didn't actually study the collateral movements between Lehman and QVT as part of your ... the opinions you submitted in this case?

A That is correct.

Q But as a financial economist, if you knew that QVT was long protection, and a shock like Fannie and Freddie had happened, the financial economist in you would expect that QVT is more in the money, right?

A I would expect that would potentially be the case if the marks were registering that and, as we say, that the overall position of QVT and its portfolio was long protection. But, you know, there, there are a lot of

qualifications. And as I said, I didn't study this in, in any detail.

Q So, you've got your theoretical view, but the details might matter, in fact, in terms of what happened between these parties, right?

A Oh that's, that's the case in almost every situation. There, there are details that can, can enter in, sometimes not important, sometimes they're quite important.

Q You've expressed an opinion, generally, about the use of Mark IT Partners data by QVT, correct?

A That is correct.

Q And you noted, I think, on direct, that there was data from Mark IT Partners for various dates used by QVT, correct?

A That is correct.

Q Where QVT used Mark IT Partners' data for, from a date other than September 15th, did you ask QVT to provide you with September 15th data for those positions?

A I did not.

Q And where QVT used Mark It Partners' data for any date, did you ask QVT to provide you with broker runs from that date so you could compare what QVT had done to what the broker runs showed.

A The only information I would have about that was in the, in the spreadsheet itself.

Q So, if it's not in the spreadsheet, you didn't ask for it.
A That is correct, yes.
Q You do know that there are, I think, thousands of Bloomberg messages received by the traders of QVT on a daily basis, correct.
A That was some of the testimony that I heard in the past few days.
Q Right. And you know that in those thousands of email Bloomberg messages, are broker runs, from time to time, correct?
A That would be correct, yes.
Q And what you saw and what you reviewed in opining that QVT was reasonable is what QVT identified in the spreadsheet, right?
A That would be correct, yes.
Q You didn't ask a single trader at QVT to go back to his Bloomberg message box and search for other data, correct?
A That is correct, yes.
Q Do you like chameleons?
THE COURT: Did you say chameleons?
MR. TAMBE: Chameleons.
A I don't think I have a special attachment with chameleons, no.
Q You've written about them?

A I have.
Q You've written about chameleons in the form of models used in finance and economics, correct?
A I wrote a paper a few years ago about what I called the misuse of models in finance and economics. And I called it Chameleons, and I can explain why I gave it that title.
Q I'm sure you will. So, let's go to 5946. In Vivid Color, that's your article, right?
A Yes, it is.
Q 2014?
A That is correct.
Q After you were engaged to work on this matter, correct.
THE COURT: I don't think that that's really a chameleon, actually. I think that's not a chameleon. I'm just saying.
Q Was this peer reviewed? Was this peer reviewed.
THE COURT: I do not think that's a chameleon. I'll let it go.
A So, so, I will, I will tell you that I'm probably guilty of doing a Google image search.
THE COURT: You did a Google image search.
A And so I ...
THE COURT: I think Mr. Tracey is going to tell you to stop talking.
MR. TAMBE: And I have no ... he should just keep

talking. If you get your best information from Google ...

THE COURT: Yeah, I'm pretty sure that's a gila monster.

MR. PFLEIDERER: Yeah? And you know what? I think if you check on the website in a few days, I think I will revise (indiscernible). I probably am not allowed to give you the credit for that.

THE COURT: No, please. Judges are having enough problems these days.

MR. PFLEIDERER: Thank you for pointing that out.

THE COURT: Let's keep going. We've got two hours and 20 minutes left of your time.

Q So, this is the article, title Chameleons, and the subtitle is The Misuse of Theoretical Models in Finance and Economics. Right?

A That is correct.

Q And I, and this is, this is a article you'd written after you were engaged in this matter, correct?

A No, I don't believe that's true. Well, the date on it, I believe is after ... I don't know the exact timing, because I wrote this over a period of time, so it's, it was written at a time I think that was similar to the time that I was engaged, but I, I just don't know the precise timing.

Q And this one has a date of March 2014. This is not an article you've revised and updated since the March 2014

data, correct?
A I don't believe I have.
Q In fact, in your CV, I think, you list this as the last article on page four of your CV, with the 2014 days, right?
A Well, I've ... yeah, that could be, that could be correct, yes.
Q So, it's a long article but I just want to draw your attention to a few observations you make in t his article. Let's start on page one. And you start off with a joke at the top. You see that?
A Yes.
Q We'll let the Judge read the joke to herself. I'm going to go onto the substance of (indiscernible)
THE COURT: You can keep going.
Q Okay. So, let's go to the first observation in your introduction, right. You start off by saying, "Theoretical models in economics and finance must, of necessity, be based on simplifying assumptions, assumptions that are on some senses unrealistic. This does not mean that the connection between the model's assumptions and what we know about the real world do not matter and can be ignored." Those are your words. You wrote that, correct?
A Correct.
Q Let's go down two paragraphs. You state at the bottom, "The proposition that theoretical models are necessary to

understanding our economic system, does not imply that having some particular theoretical model automatically means we understand anything useful. Correct? You wrote that, your words?

A That's correct. I did write that, yes.

Q And you went on to talk about theoretical cherry picking in the next two sentences, correct?

A I did.

Q Next page, page three. You start off by stating at the top of that page, "My reason for introducing the notion of theoretical cherry picking, is to emphasize that since a given result can almost always be supported by a theoretical model, the existence of a theoretical model that leads to a given result in and of itself, tells us nothing definitive about the real world. You wrote that correct?

A That is correct.

Q Your words. Correct?

A That is correct.

Q I just want to ... One other concept I want to pick up -- I'm sorry to go back and forth a little bit. On page one, at the bottom of page one, over onto page two, it starts with, "In empirical work," "In empirical work it is well understood that biased and misleading results are obtained if one cherry picks the data. I.e., if one selects data that generally support a desired result, and exclude

the, that, those data that do not, this understandably is viewed by careful empiricists as a mortal sin." Your words and your views, correct?

A That's correct.

Q And now let's just go to the conclusion. In the middle of the first paragraph, under Conclusion, on page 32. Page 32, "Being logically correct," in the middle of that paragraph. You write there, in your conclusion, "Being logically correct may earn a place for a theoretical model on the book shelf, but when a theoretical model is taken off the shelf and applied to the real world, it is important to question whether the model's assumptions are in accord with what we know about the work." Right?

A That's correct.

Q And that was one of the statements in your conclusion in this article, correct?

A That is correct.

Q Okay. So, one of the models you work with in this case was the model you described on direct, the simplified PCDS model. Correct?

A Well, the, the model that I ultimately apply in terms of my opinion is what is required for a dealer to hedge a naked position in which the dealer is (indiscernible) protection.

Q Right. But I think we've already established that you

have no firsthand knowledge and you've done no testing of what dealers actually did at any point in time, to hedge their exposure when they wrote CD, PCDS protection, correct?
A No. What I'm saying is that this is an analysis of what would be required to effectively hedge a position. And I will stand by the an analysis as being correct and I am opining that QVT was reasonable in adopting that analysis, under the premises that there were no dealers that were making two-way markets and this was what would be required for a dealer to offer protection without taking risk.
Q Well, just to be clear, you say this is an analysis of what would be required to effectively hedge a position, that conclusion is based on your model, not from talking to dealers who were in the market post-Lehman, doing anything with PCDS, correct?
A Well, there are two different exercises.
Q (Indiscernible) two different exercises, but your conclusion is not based on conversations with any dealers in the post-Lehman world, correct?
A But that would be an empirical analysis.
Q Right, which you didn't do.
A No, which I did not do. That's correct.
Q Now, you had some data that you could test your model against. In fact, it was in QVT's files. You know what I'm talking about, right?

A I'm not sure that I do.
Q Oh, the Merrill Lynch offers. That's post-Lehman, that's a dealer offering to sell PCDS protection. You could take your model off the bookshelf and test it against those values. Correct?
A Under the assumption that that was a dealer, or someone offering protection, naked, if you will, not having, not having a backdrop.
Q: Well, you didn't take the Merrill Lynch offers into account in any way whatsoever, right?
A In my initial report I did not.
Q So, if you look at CX1581 and CX1582 in the black binder that I gave you ... you can start with 1581, whichever one you prefer. Right, that is from Merrill Lynch -- do you see that?
A Yes.
Q Which by this point of time, I guess, has been acquired by Bank of America, correct?
A That acquisition, I believe, was made certainly before this time, yes.
Q And they're offering PCDS protection. You understand that, correct?
A That's what I would read it to be, yes.
Q And you don't see any discussion of points up front in this email, do you, sir?

A No, I do not.
Q And you see a cross-reference by this dealer to LT2CDS. Do you see that?
A Yes.
Q And you know what that is, right?
A I believe that is the, the running spread on whatever is being offered and they're offering it at 750.
Q Right. I was asking about the next set of letters, LT2CDS. You know what that means, right?
A I'd have to go back and refresh my memory.
Q So, as you sit here, you have no idea what that means?
A I did at one point, but I don't remember now.
Q Maybe lower tier two capital. That ring a bell?
A I think that's right. I don't remember now as I sit here.
Q So, in the real world, away from the bookshelf, there's a dealer making an offer to sell PCDS, quoting a running spread, no upfront points, right?
A That's what I read it as, yes.
Q And offering as a point of comparison, not the price of preferred equity, but lower tier two CDS spreads, correct.
A That's right, they're, they're, they're CDS. That's correct.
Q Now, for each of these positions, you could have taken your model off the bookshelf and said, where is our boss,

preferred equity trading, on October 1, 2008? Does this pricing line up with your model on the bookshelf? You could have done that, right?

A What I could do is, if I understood that this was a dealer that was offering naked protection and charging this, and wanted to avoid risk, I would have to conclude that perhaps my model was wrong and there was some other way to do it, but no one has ever told me that the model is wrong, that there's another way to do it. What I would expect here is that this is a dealer who has an offsetting hedge on the other side, because they're, they're long protection.

Q Well, one of the things you could have done, instead of guessing, is go to Merrill Lynch, and say hey, you put out an offer back in October 2008, give me some more information about what underlies that offer. You didn't do that, did you?

A No, that would be an interesting thing to do. I would ...

Q It would be. You didn't do it, and QVT didn't do it, as far as you know, right?

A I did not do it. I don't believe that QVT did it as well. But I don't know that for a fact.

Q All right. So, and I assume the answer is hold with respect the next email, which is 1582, which is the next day from Merrill with a, I think a slightly longer list. See

that?

A Yes, I do.

Q So, again, this does not factor into your analysis in any way, correct?

A I believe it's, these are for the same notional as the day before.

Q So, the answer to my question is no, I did not factor ...

A I'm sorry. I was asking a question, just to position this. So, I'm sorry, I missed your question.

Q Right. So, the question is, this document, 1582, did not factor into your analysis either.

A That is correct. Sorry.

Q You could have also tested your bookshelf model by going back to the inception of the PCDS trades and seeing if your model gave you the right answer in the pre-Lehman work, correct?

A I, I would not expect that it would, because that would be a different situation where if a dealer is making a two-way market, then the model would not apply. Again, you apply models based upon assumptions that are realistic at the time they're being applied. So, I, I would not expect that, basically, a long time ago, long before the, the Lehman filing, when dealers were making a two-way market. And I can elaborate on that if, if important to do so.

Q You had some question in your mind as to whether Merrill Lynch was a dealer, do you remember? You asked that question when we were discussing 1581 and 1582. Correct?

A Well, it depends what you define a dealer as. A party could come to have a position that it then wants to sell, and if it is a dealer in other markets you might call the dealer in that market. But, I interpret a dealer to be an entity that is making a two-sided market in the OTC market, and routinely offering, offering to either sell or buy a particular security to, to, to its customers or clients.

Q Now is a good time for about a five- or ten-minute break.

THE COURT: Sure.

Q I think we're making good progress, Your Honor.

THE COURT: Okay. We'll come back at 2:30. Thank you.

PAUSE

THE COURT: All right. Please come back.

MR. TAMBE: I'd like to make a request, Your Honor.

THE COURT: Yeah. Yes, go ahead.

MR. TAMBE: Please.

THE COURT: Miss Keller, do you want to pull that, the curtain behind there. If you're warm, Professor Pfleiderer, you're very welcome to take your jacket off. It

really is fine

MR. PFLEIDERER: I think I'm fine. Thank you. Thank you for offering.

THE COURT: Sure.

MR. TAMBE: I hope you don't mind, I've taken mine off, it's just that I'm feeling the heat.

THE COURT: It's this time of year when the sun comes around in the afternoon and we don't have any air conditioning.

MR. TRACEY: (Indiscernible) Your Honor.

MR. TAMBE: You discussed this morning some of the ways in which PCDS is different than CDS. Do you remember that?

MR. PFLEIDERER: I do, yes.

Q Let's talk about that just a little bit. You know for the bank issuers, the financial issuers that, in this case, the 19 names, they have various types of securities outstanding. Correct?

A That would be true, yes.

Q So, they had senior debt, correct?

A Correct.

Q They have sub-debt.

A Correct.

Q And they have preferred equity.

A Correct.

Q And common stock, right?
A Yes.
Q And in some ways, the preferred equity, the senior debt, the sub-debt, have similar risks, correct?
A Well, they're all exposed to the value of the assets, and in, in a sense, the equity is, is most exposed. It's, it's at the bottom. And the preferred is a little bit senior to the, to the equity and less exposed, but more exposed, and all the way up the chain into the senior debt, which was least exposed.
Q And if there were to be a hard credit event, a default, a bankruptcy, that would affect the senior debt, the sub-debt and the preferred equity, correct?
A Well, the recovery in a bankruptcy or in a state of default and bankruptcy, the senior debt would be the most protected and may fully recover. And the equity may be wiped out, the preferred may be wiped out. It would all depend upon what the value of the assets were and what the recovery was for the total value of the assets.
Q So, now moving from the securities to CDS on those securities, a hard default, a bankruptcy by the issuer, would be a credit event both for the CDS and for the PCDS, correct?
A That would be correct.
Q And in one of the ways that the preferred equity could

trigger a credit event that is not shared by the other classes of debt, is just a deferral, correct?
A That is correct.
THE COURT: Excuse me one moment. Thank you very much. If I could ask someone on this side of the room to prop the door open with a box or a chair, that would be great. Go ahead.
Q So a credit event on the preferred could be triggered, preferred CDS could be triggered by either a deferral or by a hard default. Correct?
A That is correct.
Q The prices at which the securities -- so, again, we're back at the securities. The debt securities, the preferred equity, the prices at which those trade, would contain some information about the likelihood or probability of default as well as the likelihood or probability of deferral. Correct?
A Generally speaking that would be true. And it would also depend upon recovery.
Q And that's information embedded in the prices that one could extract by examining the varying levels of prices but different types of securities, correct?
A You would have to make some assumptions to do that, but there's a potential to get some information after making some assumptions, yes.

Q So, for example, again, in the theoretical world, from Friday, September 12th to Monday September 15th, one might expect that the risk of default, a hard default, generally went up for a lot of entities. Is that right?

A That would be my belief based upon the situation at that time. Yes.

Q And again, your belief as a financial economist would be, and the risk of deferral may have gone up as well. Correct?

A That would also be my belief, yes.

Q And, in fact, you might start seeing some separation where the likelihood of a deferral may have gone up much more substantially than a likelihood of a default.

A That's certainly possible, yes.

Q But you could get that kind of information by examining changes in prices of the relevant securities, from before September 15th to after September 15th, correct?

A There's a potential to gather information in that respect, yes.

Q And, as far as you know, that's not an exercise that QVT undertook in examining its valuation of PCDS, correct?

A I don't believe they did that, no.

Q And that's not something you did either, correct?

A That is not something that I did.

Q Let's go to the demonstrative, because you have a

demonstrative deck.

THE COURT: The deck that Mr. Tracey used?

Q: That Mr. Tracey handed out. I think it's got Exhibit number 2148. And I just want to draw your attention to the last page, page 9. So, I think I follow your example and sort of the pages leading up to this. But just to be clear, what you're showing on this page, with the zero profit loss line, with respect to each series of dots, is what happens when there's a creditor. Correct.

A That would be correct, yes.

Q There's another chart that's not on here at all.

A In other words, when there's not a credit event.

Q Yeah.

A Yes, that's correct.

Q But that's a possibility that's not even addressed on chart 9 in terms of the payoff to the (indiscernible), correct?

A Yes, indeed the ... just to make sure that we're on the same page, at the bottom it says, "Price preferred stock in the case of a credit event," so it's confining our attention to that.

Q So, if a dealer is looking at this potential transaction, and doesn't have a crystal ball, or a time machine, there are two potential future states of the world, correct? One with a credit event, one without a credit

event.
A That is correct.
Q And let's just go through the cash flows if there's no credit event. If there's no credit event, and maybe we can just go to your first slide, slide two. This, this was your generic CDS but generally, you would say this generic applies to PCPS as well, correct?
A Generally speaking, yes.
Q So, CDS buyer enters into the trade, makes periodic payments, would make those payments for five years. And if there's no credit event that triggers a protection payment, you're out those payments.
A That is correct.
Q And putting aside pay-as-you go CDS -- talk about that later -- you need to have a hard credit event for most CDS, correct?
A That is my understanding. Yeah, that's correct.
Q Now, in your model, you not only have the period premium, but you've also got a fairly substantial upfront payment that's being made by the CDS buyer to the CDS seller, correct?
A That is correct.
Q So, I don't (indiscernible) have a picture for that, but in our example you said it would be a $20 million, $20 upfront payment, correct?

A Twenty dollars per hundred in notional.
Q Per hundred notional. So, again, in the world, where there is no credit event, the CDS seller gets $20 upfront.
A Correct.
Q And gets however many months of premium, correct?
A Well, in my example there was no premium. It was ...
Q So, you assumed that away.
A I assumed that away. I assumed that it was just a payment upfront.
Q But in reality, you know, there's generally a premium, correct.
A It depends. Right now, usually there's a 500 running spread and then an upfront payment one way or another depending upon the value.
Q That's money to the dealer which the dealer doesn't have to pay back if there's no credit event.
A That is correct, yes.
Q So, in these two states of the world, in your state of the world, page nine, by doing this hedging exercise, the dealers got zero profit loss if there is a credit event, correct?
A That's correct.
Q In the other state of the world, where there is no credit event, there's some positive number.
A There would be a, there would be a gain. That is

correct.
Q At least two, right, at least 20. It's the upfront payment.
A That would be the gain.
Q You'd never have to give that back?
A That's right.
Q So, the expected payout for this transaction is, what's the probability of a credit event happening? And what's the probability of a credit event not happening? Correct?
A The expectation for the dealer would have to basically take the probabilities over all of those. What this is doing is eliminating the downside. In other words, it's a case of saying the dealer doesn't want to take any risk, wants to mitigate the downside risk, and this is, this is the way you do it.
Q But there's a really good way of eliminating all risk. You simply don't do any transactions, right? That's one way you could eliminate risk.
A That is entirely correct and that, presumably, is why, or potentially that's why QVT did not get any, any bids.
Q But this model is all about a world in which a replacement trade, hypothetically, could happen. And the dealer would be looking at two scenarios, one in which there is a credit event and the dealer is protected by making this upfront demand, that you say. And another world where there

is no credit event, and the dealer gets 20 million and doesn't have to pay it back. Right?

A That's right. So, the, the whole basis for this is exactly what you said. One way to eliminate risk, if you don't want to take risk, is not to trade at all. And that's what QVT was seeing. And so, I think it was reasonable that based upon seeing, just based upon what you said, not taking risk is basically not entering into any transaction. The fact that QVT was unable to buy protection, even from Lehman, before the Lehman bankruptcy, is an indication that there weren't dealers or others that were wanting to take that risk.

Q I'm just staying in your theoretical world, not what happened in the real world. In the theoretical world that you've constructed, you've described one leg of the future world, correct, one in which there's a credit event? Right?

A Well, this, this, again, was labeled correctly, price of preferred stock in the case of a credit event. You're absolutely right, that if there's not a credit event, the dealer will gain. I was picking upon what you said, which was very simply, that if you don't want to take risk, one way to eliminate the risk is not to trade at all, and that's what QVT was seeing, and so, I'm simply, based upon this observation, that's reason for them to come to the conclusion that dealers didn't want to take that downside

risk, and this is the way to hedge it away.
Q I hear that from you, Professor Pfleiderer, but the point is, their entire claim is based on PCDS, on what a hypothetical dealer would charge, had it entered into the trade, correct?
A But if you're saying that a hypothetical dealer wouldn't have entered into the trade, then you're saying that they wouldn't have been able to replace it at all.
Q Possibly. But my point is a different one, which is, nowhere in your demonstrative do you describe the world where there's no credit event.
A That's correct, yes. Again, it's conditioned on a credit event and getting rid of the downside risk.
Q Nor do you state anywhere in your demonstrative or in any of the analysis, any of the analysis that you've done, on what the probabilities of deferral were at the time.
A Now, this is based upon hedging a protection selling position, given that you want to get rid of all the downside risk, which a dealer, arguably would want to do if it was going to be naked. The alternative is not to offer protection at all. And I'm not sure, perhaps there's something in the ISDA, and I'm not an expert in ISDA, but if you hypothetically assume that you couldn't get any protection, then I don't know how you value your claim. So, that, that's what I'm having trouble with in this, in this

line of, of questioning.
Q Just taking it small steps at a time.
A Sure.
Q What you did do and what you didn't do. I think you agreed with me that what you didn't do, and haven't presented, is any analysis of the probability of deferral at any point in time during Lehman week, correct?
A That is correct, yes.
Q And a dealer who was thinking about not just not losing money, but potentially making money, might look at those two worlds and say, "I have an upside and I have a flat position." Is that right?
A Could I just go back to make sure that I ... just so that ... question is clarified. Were you asking, I think there's a distinction, just to be made on the record, what was the probability of a deferral during the Lehman week, and what was the probability that a dealer would assess of deferral over the life of the PCS contract. And those are two different things. And so, I don't ... I made an answer, gave an answer, but I just want to distinguish that those are two different things.
Q But regardless of whether that's one thing or two different things, you didn't analyze either of them.
A That's correct. That is correct.
Q All right. Well, you could get some information about

what the market thought about the probability of a deferral by looking at the prices of preferred equity, correct?
A Potentially, yes.
Q So, let's just go to 2108, exhibit 2108, which is a spreadsheet. Before we pull up any particular tab, you did study this, correct, in forming your opinions?
A This, this isn't quite the spreadsheet that I looked at because I believe this is the redacted one, but yes.
Q So, you know there was a spreadsheet, it was redacted, and that's the one we're using in this trial.
A I, I, I believe that's .. this is the same, minus the redacted parts.
Q Okay. And you know that Mr. Chu collected and presented in one of these tabs various prices for various preferred equity issued by the 19 reference issuers, correct.
A That is correct.
Q You didn't conduct any analysis of that dataset to see if you could glean any information about the probability of default for any one of these issuers, correct?
A I did not, no.
Q Let's go to BCDS data. And take ... can you see that fine sir?
A Yes, I can.
Q So, I want to draw your attention to, let's go down to

Wells Fargo, I think it's WFC, right. So, you'll see for WFC, you recognize that as one of the issuers, right?

A That's correct. That's Wells Fargo.

Q So, you got one, two, three, four lines ... four lines of data that's collected by Mr. Chu, correct?

A That is correct.

Q First of all, you didn't, you didn't try to collect any additional data beyond what Mr. Chu was showing you, correct?

A I did not.

Q So, there may well be lots of other Wells Fargo preferred equity with pricing in the market, you didn't go looking for it?

A Not prior to, probably, my initial report.

Q Yeah, not when you submitted your opinions to the court, correct?

A The initial report, yeah.

Q And if you could scroll across to see what price Mr. Chu actually used, so, you'll see in column K -- I think you're familiar with this, right? He uses the price of 80 to come up with a CDS mark of 19.9.

A That is correct from what I see here. Yes.

Q So, now let's just go back to the left so we can see all of the different prices, and stop right there. Would it help you to have the headings on so you know what dataset

each is? Can you do that please (indiscernible)?

A I think those are just the dates.

Q Yeah, just so when we're further down the spreadsheet, you're not confused about what day we're on.

A Yeah, that's fine.

Q So, now let's go down to WFC. And that's the (indiscernible). So, the price Mr. Chu used was the one from the 18th of September of 80.1. Do you see that?

A That's correct.

Q You can see that first WFC preferred equity is priced -- we've got Citigroup closing the line as the comment, and it looks like you've got prices on every single day, 96.5, 96, 91, 96, 99. Do you see that?

A That's correct.

Q Right. And that would suggest to you that there was a very low risk of deferral on that WFC bond perceived by the market, correct?

A Well, we have to be careful here. If you look in Column B, you'll see that there's a difference between these bonds. One has a dividend of 9.75 percent and another has a dividend of 5.95 percent. So, going back to what I talked about earlier this morning, when you short an instrument such as a preferred, you, as the person who shorts, have to pay whatever the lender is entitled to receive. So, you're going to be paying if you short the top bond, the 68 -- "low

68 bond", I'll call it -- you're going to be paying 9.75 percent. Whereas, if you short the 5.95, you're going to be paying less. So, if you were to short the bond that has a higher dividend, you're going to have to be paying more when you short it to whoever you've borrowed it from, and you're doing this is a hedge. You're going to charge whoever is acquiring the protection for the fact that you have to pay more.

Q You anticipated a question I wasn't even asking you. I wasn't asking you about how someone shorts this. I'm just saying, if you look at that private equity, preferred equity security from Wells Fargo, it's priced at 96.5, 96, 91, 96 and 99, right? That's not suggesting a heightened risk of deferral on that particular security in the first week of September -- second week of September 2008, is it sir?

A No. We have to go back. We see two bonds with different dividends, and so you have to figure in the value of receiving those dividends. You're going to be receiving dividends that are going to be higher. And so, that's going to make the bond higher.

THE COURT: I think I'm going to just try to move this along. I think Mr. Tambe is trying to ask you a different question.

PROF. PFLEIDERER: Right. I'm sorry.

THE COURT: I think he's just asking you to look

at the one security that he's focusing on --
PROF. PFLEIDERER: Mm hmm.
THE COURT: -- and not make a comparison.
PROF. PFLEIDERER: Okay.
THE COURT: Is that right, Mr. Tambe?
MR. TAMBE: That's right. That's exactly right. IF the mark --
THE COURT: And looking at the market data and what the market data tells you --
PROF. PFLEIDERER: Okay.
THE COURT: -- about the risk associated with the security at these (indiscernible).
MR. TAMBE: That's right. That's all it is. Yeah.
Q I mean, in fact, regardless of what the coupon is, if there's a deferral on September 16th, that coupon isn't upgraded to immediate value. You're not going to get that coupon, right?
A That's correct.
Q Right.
A That's correct.
Q So, trading close to par, at least with respect to that bond, the market seems to be saying these guys aren't going to defer.
A Well, I have to factor in again the level of the dividend or coupon. I call it the dividend. But the

probability of deferral that would be implied there is not extraordinarily high. But you have to be careful in inferring what it is because you have to take into account the coupon rate.

Q Well, you've got to be careful about all sorts of things, but you didn't do any of that analysis, right?

A I did not do any of that analysis.

Q Right.

A That's correct.

Q Okay. So, and you didn't look at the possibility that Wells Fargo might differ on one of these preferred equities and not defer on the others. That's not an analysis you did?

A Oh, you don't have to do that analysis because remember, you can deliver the cheapest to deliver.

Q Different question. Not about the cheapest to deliver. Did you look at the possibility that when Wells Fargo decides to suspend dividends on a particular preferred equity, it would do it for all preferred equity, or just for one slice of the preferred equity?

A Oh, that's a possibility, yes.

Q Right. But you didn't examine that, did you, sir?

A No, I did not examine that in particular.

Q And you have no understanding as to whether these bonds have a pari passu clause in them, do you, sir?

A At this -- sitting here today, I don't know that. I'd have to look.
Q But you generally know that there could be pari passu clauses in some of these bonds, correct?
A It could be, yes.
Q And therefore, it might be difficult for Wells Fargo to suspend dividend payments on one security while continuing to make preferred -- continuing to make dividend payments on other securities, correct?
A That would be the case, yes.
Q But you didn't examine any of that?
A Not on this or any of the other issues. That's correct.
Q I know you generally observed in your report that there was Markit partners there available for some of these issuers on September 15th, 2000, correct?
A For the PCDS.
Q You don't note anywhere in your report how many contributors there were to the Markit partners data, for any data, during the week of September 15, 2008, correct?
A No, I do not.
Q You did observe that the main market maker, Lehman, had ceased to exist, it had expired. It was an x-broker dealer. But there were other dealers in the market, broker dealers in the market, who had PCDS positions on their books,

correct?

A That is my belief, yes.

Q Do you know whether any of them contributed values to Markit partners, even after Lehman had become an x-broker dealer?

A I do not know.

Q Okay. But generally, your view was Markit partners' data was unreliable?

A It's my understanding that there were points on the curve where it was thin, was marked as thin, which means that, as I understand it, when Markit does that, it means that there aren't enough indications to really report a reliable result. That was my understanding.

Q Even after Lehman had ceased to exist, there were more than one or two reports in Markit partners for the PCDS that Markit provided data for, correct?

A I believe that's correct. I'd have to go back and check for sure, but I believe that's correct.

Q But that wasn't Lehman providing those, correct?

A I would have to assume that because at that point Lehman was no longer in business that that was the other market makers, or other dealers, that were providing information.

Q Just a -- I think we've covered this, but just a brief discussion on market impact. I think you observed in your

report, and you may have also mentioned on direct, that this was a large notional amount for PCDS. Remember that?

A It was.

Q And your view was it's large because it's $371 million, correct?

A That was the total amount of notional over the 60 positions, I believe.

Q Right. But you know generally, any one of the PCDS contracts was a notional far lower than that, correct?

A On average, it would be that divided by 19, if you look at the contracts for a particular issuer.

Q And you didn't conduct any analysis of the liquidity in the preferred equity market the week of September 15, 2008, when you put in your original report, did you sir?

A Before my original report, no; after, yes.

Q Mr. Chu told you that he found the GMAC spreads to be a good proxy for (indiscernible)?

A I believe he testified that in testimony and I believe that that was my understanding when I first started as a consulting expert for QVT and had conversations with Arthur Chu, yes.

Q And ultimately you concluded that Mr. Chu's methodology, QVT's methodology, was reasonable with respect to (indiscernible), correct?

A Again, as I explained this morning, it's difficult to

determine what a proxy should be, but using something that was exposed to automobile loans in the way the GMAC was, I considered a good proxy for the exposures that were underlying the (indiscernible) basket.

Q So as soon as you prepared your initial report, you actually looked in the (indiscernible) basket to see if it was in there, right?

A I did.

Q And you never asked Mr. Chu why he hadn't used Ford Motor Credit as an additional proxy?

A I have a hazy recollection of discussions when I first got involved in which certainly I understood that GMAC originated securitizations were half and I believe that we had discussions about why GMAC was a good proxy. So, yes, I believe those discussions certainly happened.

Q And the question, again, was a little bit different.

A I'm sorry.

Q You never asked Mr. Chu why he had not used Ford Motor Credit as a proxy?

A Well, I'm not sure how those discussions went. I think there was some explanation as to why GMAC had been used, so I didn't have to ask that question. But if my memory is correct, I don’t' think I explicitly asked that question. I think I got the answer without asking it. But my memory is hazy because that was early on in the project.

Q That may have been early on in the project, but when you rolled up your sleeves and got the (indiscernible) folks to work on the initial report, did you go back and ask those questions again and say, do I really understand what Mr. Chu's done here?

A I probably did, but I don't remember. I don't remember whether I thought I understood it at that point because there had been numerous discussions about (indiscernible). So, I don't recall whether I explicitly asked.

Q And when Mr. Chu told you, I, Mr. Chu, believe it's a good proxy to use because there's a correlation between GMAC and (indiscernible), did you say, Mr. Chu, (indiscernible)?

A I think he did. As I recall -- again, this was in discussions early on. I think there were various supporting pieces of analysis that he had shown me that indicated that there was a rough correlation, yes.

Q Right. But you understood that none of that work that he was showing you had been done before the calculation statement was put in, correct? That was all done after October 15.

A I don't know when it was done, so it could've been before, it could've been done after. I don't know.

Q Well, in testifying about the reasonableness of the calculation, you have no reason to believe that any of that analysis had been done at the time the calculation statement

was submitted, correct?
A I don't know one way or another.
Q And did you ever challenge Mr. Chu and say, well, GMAC has a lot of other risk in it other than auto risk?
A I don't think that I did. I probably did, but I don't recall specifically one way or another.
Q But you do know that to be a fact, that GMAC has lots of risk in it other than -- did have lots of risk in it other than just auto risk, correct?
A I don't think I had a full understanding of all the exposures of GMAC.
Q And that wasn't relevant to the opinion you rendered in this case?
A Well, the only question was whether it was a reasonable proxy that would capture the underlying exposures.
Q And you did no empirical testing to see if in fact that was the case, correct?
A In other words, before?
Q Yeah. When you submitted your original report?
A Well, no, I'm talking about before the Lehman bankruptcy in prior periods. In any event, that was a silly question for me to ask. The answer is I didn't do an empirical analysis.
Q All right.
A I should have just answered that way.

MR. TAMBE: If I can just look at my notes, Your Honor?

THE COURT: Sure.

MR. TAMBE: This is almost done. IF we could just take a 10-minute break?

THE COURT: Sure, that's fine. So, we can come back at 3:15.

MR. TAMBE: That'd be great. Thank you.

(Recess)

THE COURT: Please have a seat. At the end of the day, we need to spend some time --

MR. BECK: Certainly.

THE COURT: -- talk about stuff. You know, housekeeping stuff.

MR. BECK: Yep.

THE COURT: Please come back, Professor. I got rid of the jackhammers.

MAN 1: That's good.

MS. SAWYER: Someone else (indiscernible) cannot (indiscernible).

THE COURT: It's okay.

MR. TAMBE: Sorry, Your Honor.

THE COURT: No problem. I'm just trying to keep to the schedule. I don't mean to rush you.

MR. TAMBE: I have no further questions for Professor

Pfleiderer.
THE COURT: Oh. Okay. Thank you.
REDIRECT EXAMINATION OF PROFESSOR PAUL PFLEIDERER
BY MR. TRACEY:
Q Professor Pfleiderer, I'm going to ask you a few additional questions. Mr. Tambe asked you a number of questions about whether you went out and talked to (indiscernible) who were dealing in PCDS. Do you recall that?
A I do.
Q And you said you didn't, right?
A I did not.
Q And if you had decided to go out and talk to the dealers in 2008 that were making (indiscernible) in PCDS, who would you have talked to?
A I'm not sure there was anyone to talk to. Perhaps there was, but I certainly didn't. From all that I understood about this market, there was basically little or no trading activity and little or no making a market by dealers.
Q And in all the evidence that you've looked at, have you seen any evidence there was any dealer making a two-way market in PCBS after September 15th, 2008?
A I'm not aware of anything, no.
Q You answered some questions from Mr. Tambe about the

manner in which a dealer was likely to hedge a sale of protection in PCDS. Do you recall that?
A I do.
Q And Mr. Tambe asked you questions about whether they would hedge in some other way besides selling short?
A I believe that was his question.
Q Are you aware of any other way for a PCDS protection seller, after September 15th, 2008, to hedge effectively a sale of protection other than selling short securities, or preferred securities?
A Assuming that you don't have on the other side someone who has sold you a protection. So, in other words, if you're -- and I'll use this word -- "doing it naked" without someone having sold you protection to basically provide you with that hedge, if you're doing it naked and have to construct the hedge that eliminates the downside risk, this is, in my view, the only way to do it.
Q And what support do you have for the fact that a dealer at that time couldn't go out and source protection from other dealers?
A Well, again, the knowledge that QVT had at the time was it was trying throughout the summer to get more exposure to PCDS and had queried Lehman several times, and Lehman wasn't forthcoming with additional protection that it could sell.
Q So, QVT couldn't source any protection in September of

2008?
A That was my understanding, yes.
Q And Lehman couldn't source any either?
A That was basically my understanding, yes. I believe that sort of what I saw was that Lehman was only willing to do it if it was done non-switch. In other words, you'd need to buy something back. Basically, we need to limit the exposure that we've sold to you to offer you some new exposure. So, it was, as I interpreted that, meaning that it wasn't wanting to take risks and it didn't have ways to lay that risk off on the other side. That was a certainly reasonable interpretation for QVT to make.
Q And we did see one offer of protection, October 1st and October 2nd, from Merrill. Do you recall that?
A Yes. I have seen that.
Q Let's bring that up. And it's Exhibit 1581 and 1582. So, let's first look at the Claimant's Exhibits 1581 and 1582 at the bottom. We have something else up there that we're going to move to.
First of all, to you have any reason to believe that Mr. Chu and the other QVT traders were aware of this offer of protection were made in their valuation process?
A Well, if I understand the chronology, I believe that the valuation process was done primarily over two weekends that would be prior to this. And as far as I understand,

they did not have this available to factor into the analysis. But that's my understanding from testimony that I've heard and read.

Q And is that why you didn't include this in your analysis?

A When I wrote my report, I'm not sure that I was even aware of this, partly because it wasn't something that QVT was using in its mix of information.

Q And in evaluating the reasonableness of QVT's valuation, would you find it appropriate to review something that they were not aware of?

A Well, it almost --

MR. TAMBE: Objection.

A -- sounds like an impossible --

MR. TAMBE: Objection. Leading, Your Honor.

THE COURT: Yes, Mr. Tambe.

MR. TRACEY: Sorry?

MR. TAMBE: Objection. Leading. Calls for speculation.

MR. TRACEY: Well, I'll rephrase.

THE COURT: Okay.

Q Well, let me direct your attention to the Merrill Lynch offers here. Can we see 1582? So, this is dated October 2nd, 2008, is it?

A Yes.

Q And did you see in QVT's valuation the use of any levels from October of 2008?

A No.

Q Let's look at 1581. And that's dated October 1st, correct?

A Yes. It appears to be, yes.

Q Now, what I'd like to do is bring up at the same time that Claimant's Exhibit 1788. And what I'd like you to do is to...

MR. TRACEY: If you could, John, filter that for Merrill Lynch. And if you could also filter it for the maturity of March 20, 2016?

Q Okay. Professor Pfleiderer, have you seen Claimant's Exhibit 1788 before?

A That's the spreadsheet?

Q The spreadsheet.

A Yes. Yes.

Q And if you could review the transactions by Lehman with Merrill Lynch in the spreadsheet and compare them to the offers by Merrill Lynch, and tell me what you observe?

A Well, they're quite close. If I'm reading this correctly, what is being offered for sale, if you will, on Wednesday and on Thursday is -- that's a subset, but very close to what it seems that Merrill had with Lehman in this log.

Q And what does that tell you about Merrill's position with regard to these particular PCDSs?

A Well, first of all, it says that -- at least what I would interpret it to say is that Merrill had had positions in these securities that is now offering TBS contracts -- PCBS contracts it's now offering for sale, offering to sell protection, and that it had that originally with Lehman. And so, presumably, after Lehman -- I guess we've already used the term expired, or ceased to do business, then obviously, that exposure no longer existed. And so, very likely, or it certainly is very far in the realm of possibility that this is a situation where you have someone that already has a hedge, potentially, that has purpose protection, someone sold protection to this entity and now Merrill is, shall I say, reselling it in the market because it is already hedged.

MR. TAMBE: Your Honor, move to strike that answer as speculative.

MR. TRACEY: Your Honor, Professor Pfleiderer is interpreting documents that reflect a particular trading pattern and I think, based on his extensive expertise in trading, he's perfectly qualified to interpret it to determine what it tells a person knowledgeable about training.

THE COURT: Two things. One, is this something

that you looked at in forming your opinions?

PROF. PFLEIDERER: In forming the opinions from my original report?

THE COURT: Yes.

PROF. PFLEIDERER: No.

THE COURT: All right. So, that...

MR. TRACEY: So, we can come back to it later, then. That's fine.

Q Professor Pfleiderer, you were asked some questions about Exhibit 5946 of the picture?

A The picture that I'm going to correct? Yes.

Q Could you describe the premise and the conclusions in this article?

A Yes. I wrote this article because in other theoretical models that are related to -- and I'll give an example -- related to the need for high levels of bank indebtedness, or low levels of bank capital, make a number of assumptions that are difficult to justify. I wrote it because, for example, there are a lot of models that are written by academic people in finance about how optimal capital structure is determined by CFOs. And some of them involve having to sell very difficult (indiscernible) differential equations using lots of computer power. And when I read these models and I then think about actual CFOs making decisions, it just doesn't connect because they don't have

the computing power or the ability to solve these models.

And a long time ago, Milton Friedman, a very famous economist, argued that people do this as if. So, a billiard player is in solving the geometry of how to shoot the ball, but does it as if he or she is solving that problem. But the issue there is that the billiard player plays thousands and thousands of times and makes thousands and thousands of shots and gets immediate feedback as to what's happening and learns over time. And we all do that. When you learn to catch a ball or something of that sort, you're doing it many times and getting immediate feedback as to whether you are successful or not.

When you make a capital structure decision as a CFO, you only make that decision maybe 10, 15 times a year, probably even less than that. And you don't get immediate feedback as to whether that was the right decision or not. So, it was a big disconnect for these models to sort of rely on this as if argument when, if you just look at the human beings, they don't have the capacity to do it.

So, there are a number of things that I bring up in the paper that sort of look at whether you're really making reasonable assumptions based upon what people can actually do.

Q And does the model that you're criticizing in this paper apply to the hedging structure that was used for

valuing PCBS?

A No, it does not. The assumptions that are made there are, in my mind, at least, extremely compelling, and those assumptions are that there were no dealers that were effectively making a two-way market. QVT had sought protection and hadn't been able to get it. So, a dealer that was wanting to -- was asked to offer protection could do what Mr. Tambe said and just not do it at all, which is the easiest way not to take risks. Or the only way -- and I stand by this opinion -- the only way to do it effectively to eliminate that downside risk, which was extreme, potentially, in a financial crisis when you're talking about preferreds, the only way to do that was too short. And Mr. Tambe's right that when you do that, you do preserve some upside that if a credit event doesn't occur, you have that, but you are getting rid of the downside. And the fact that we thought no one was really offering protection at this time in a huge way, I think, makes this a compelling argument.

Now, the question is why do, in many cases, a dealer -- why is a dealer able to make a two-way market, why do some people sell protection? And the reason is that you have people in the market who are speculating. They look at a credit default swap and they either think it's overpriced or underpriced. And the people that think it's overpriced

are happy to sell it, and the people that think it's underpriced are happy to buy it. And that happens in the stock market and everywhere else. But if you don't have both sides of that market, a dealer is not going to want to take that risk, and so what I'm looking at here is what it would cost for a dealer to hedge out that downside risk. And there's a very, very straightforward model that uses fundamental principles of financial economics. It's not making any assumptions about supercomputing power or anything of the sort that I'm criticizing in this paper.

Q Let me turn to what --

THE COURT: Mr. Tracey, are you done asking him about this paper?

MR. TRACEY: No.

THE COURT: May I have one, please?

MR. TRACEY: Yes, absolutely.

THE COURT: So, Professor Pfleiderer, Mr. Tracey just asked you a number of questions about this paper, and largely, your answers on, I think, the question related to cherry picking of assumptions in connection with --

PROF. PFLEIDERER: Right.

THE COURT: -- a theoretical model.

PROF. PFLEIDERER: That's part of what I wrote about, yes.

THE COURT: Right.

PROF. PFLEIDERER: Yes.

THE COURT: But the concept of cherry picking, and I think in the text of your paper here, you say that, "We talk about cherry-picked assumptions don't necessarily stand out as contrived and they often can't be defended as simplifying assumptions that are made so that the model is --

PROF. PFLEIDERER: Mm hmm.

THE COURT: -- trackable." You drop a footnote, again repeating the observation of conscious design, and you say, "(indiscernible), so the researcher may need to take a step back and ask whether the assumptions unintentionally are contrived and serve more to produce a particular result than to simply the analysis."

PROF. PFLEIDERER: That's correct.

THE COURT: My question is, that the concept of cherry picking, though, is equally applicable or of equal concern with respect to actual facts and not assumptions, correct?

PROF. PFLEIDERER: Oh, yes. That's correct.

THE COURT: In other words, cherry picking is simply selectively choosing data, results, opportunities, from what's available in a way that is sought?

PROF. PFLEIDERER: That is technically correct, yes.

THE COURT: Okay. Thank you.

Q And in the course -- just to follow up on what the Court asked -- in the course of your review on QVT's valuation of its positions, were you alert to the possibility of cherry picking data in order to contrive a result?

A I certainly was alert to it, but much more alert to it after I saw the Lehman expert reports, where they were making that -- maybe allegation's not the right word, but that's the only word that comes to my mind. But in any event, when the Lehman experts use the word cherry picking, I then went back and did some further analysis, which I guess we're going to talk about in a month or so.

Q And so, just for the time being, in reviewing what QVT did, did you see any evidence that they were cherry picking among the data they had to contrive a result?

A No.

Q Now, let's go to the alternative scenario that Mr. Tambe mentioned where a dealer sells protection and hedges it through the short sale of the underlying securities and takes an upfront payment, whether that payment be 20 when they prefer it as 80, or 30 when they prefer it as 70, whatever it is. And let's say -- first of all, does the dealer know how it's going to turn out when he enters into that trade and that hedge?

A No. If he knew how it would turn out, then he or she would know precisely what to charge.

Q And so, in the event that there is no credit event, does the dealer take risk on the short position that he's entered into on that underlying preferred security?

A In this case, not much. The risk is that the preferred would go above 100, in which case, then you've got a problem because you have to buy back the preferred at a price above 100 and you don't have the wherewithal to do that, because let's say you sold it at 70, collected 30, and then it goes to 110, then you've got some risk.

So, it's not a perfectly riskless hedge, but at this time, we're in a financial crisis or a brewing financial crisis, the concern of a dealer would be things are going to go south. And the scenario where all of a sudden, things turn around and become rosy and pricing goes a little bit above 100 was not something that the dealer would probably be -- well, reasonable be concerned about. And if the dealer were, the dealer would charge a little bit more to cover that, which QVT obviously didn't factor in here, and I think appropriately so. That was not a significant risk.

Q And again, in a situation where the dealer has entered into a short sale of securities, I think you told us earlier that the dealer would be required to pay the coupon to the buyer.

A That is correct, yes.
Q And is it possible that that coupon would be higher than the premium that the dealer's being paid?
A Well, I didn't -- in my simple example, I didn't factor that in, so...
Q Well, tell us how you would factor it in.
A So, if you were to factor it in, that would be potentially, if you really wanted to make it (indiscernible) -- and again, a dealer -- I should put a parentheses here -- a dealer's only going to do this if the dealer thinks he or she is gaining in doing this. The dealer had no obligation. This is not a market where you have an obligation to offer something. So, the dealer is going to make sure that he or she is whole in terms of risk exposures and things of that sort, and then only going to be motivated to do it if there's some perception of profit.
So, a dealer that was going to short a security that required payments of a certain amount, the coupons or the dividends, would have to make sure that he or she was recovering that, and would take that into account and charge QVT upfront for that. They're not going to make a charitable contribution here.
Q And that's an extra cost --
A That would --
Q -- that they would charge?

A -- potentially be an extra cost. So, if the running spread were equivalent to that, then potentially that would wash out. But that would be something additional to just 100 minus par.

Q So, in the pure case where they charge 100 minus par and there's no credit event, they would be exposed to a risk of the losses on that coupon, correct?

A They would have to be making those payments, until they could close out the short position. That's correct.

Q And the concept here is that that short position would have to be maintained for four and a half years to cover the risk during the period of the PCDS, correct?

A Well, potentially up to whatever the term is. Of course, if there's a credit event before, then you close out the short position at that point. So, if there's a significant risk that a credit event would occur within the first two years, let's say, then you would probably factor in that you're less likely to be paying those coupons or having to keep the short position open beyond that.

Q But in Mr. Tambe's example, where there is no credit event, Aare you paying it for the entire four and a half years?

A Yes, you would be because up until the end of the contract, you'd have to worry about a credit event. And it may be that if things improve so that you no longer are

really worried about this, you could sort of partially hedge, you could close out part of it. There are various things you can do. But you're absolutely right. To have the full hedge in place over time if it was a four-and-a-half-year tenure, you would need to keep the short position open for that period of time.

Q And would you also need to pay the stock borrow cost for that entire period?

A Yes. You would

MR. TAMBE: Your Honor, objection.

THE COURT: Yeah.

MR. TAMBE: Leading nature. The questions are getting more and more leading as we go down.

MR. TRACEY: I can rephrase it.

THE COURT: Okay.

Q Are there any other costs that a dealer would have to incur in the event that there wasn't a credit event for four and a half years?

A So, there again, there's several costs. One, of course, is what we just talked about, having to pay the dividend to the entity that you borrowed the preferred from, and then as often the case, you do have to pay a fee, a stock borrow cost, on top of that to compensate the lender for basically doing you this service of allowing his or her preferred to be lent.

Q Okay. You were asked a series of questions about whether you assessed the deferral risk of PCBS, or preferred securities, yourself, correct?

A Yes, I was asked that.

Q And why didn't -- you testified that you did not do that, correct?

A I did not do that in an explicit way.

Q Why didn't you do that?

A Because the premise that was behind this analysis was the simple premise that the risk of deferral was material in a strong way here, that there was significant risk, and that again, there weren't a lot of people lining up to offer protection. So, a dealer would be in a position of having to consider significant deferral risk, where that's not quantified in a precise way, but because it was significant, would want to make sure that they weren't exposed to significant risk. And the only way to do that was to hedge with the short position, and the only effective way to do that was to hedge with the short position in the preferred security.

Q And are you aware of whether there are other experts in this case who have looked at that issue?

A In terms of the pricing of the PCBS?

Q The risk of deferral based on the price of the preferreds.

A Yes. I believe that Dr. Peter Niculescu and CMRA have looked at that.

Q Dr. who?

A I'll get the first name right and I'll insult him, perhaps.

THE COURT: The last name is spelled N-I-C-U-L-E-S-C-U.

PROF. PFLEIDERER: Yeah.

MR. TRACEY: I'm going to be finished, Your Honor. May I have a moment?

THE COURT: Sure.

MR. TRACEY: I have nothing further, Your Honor.

THE COURT: All right. Thank you.

MR. TAMBE: Can we just consult for a minute?

THE COURT: Sure.

MR. TAMBE: Your Honor, I have no further questions.

THE COURT: You have no further questions?

MR. TAMBE: I have no further questions.

THE COURT: Very good.

MR. TAMBE: May I approach? I just want to --

THE COURT: Yes, of course.

MR. TAMBE: (indiscernible)

PROF. PFLEIDERER: (indiscernible)

THE COURT: Thank you very much.

PROF. PFLEIDERER: Thank you.

THE COURT: We've given you back 40 minutes.

PROF. PFLEIDERER: I appreciate that. I'll get on my plane and get home.

THE COURT: Very excellent. We'll see you --

PROF. PFLEIDERER: To weather that may not be any better than this.

THE COURT: Two weather -- oh, I --

PROF. PFLEIDERER: (indiscernible)

THE COURT: I've been reading about that, but --

PROF. PFLEIDERER: Yeah.

THE COURT: -- sounds as if they've gotten it under control (indiscernible).

PROF. PFLEIDERER: Oh, yeah. That was scary.

THE COURT: That was very scary.

PROF. PFLEIDERER: I agree.

THE COURT: Safe travels. We'll see you in a --

PROF. PFLEIDERER: Thank you very much.

THE COURT: -- couple of weeks.

PROF. PFLEIDERER: Thank you much.

THE COURT: We're going to keep talking among ourselves, but you're free to leave.

PROF. PFLEIDERER: Thank you.

THE COURT: Okay. I think we can keep the record open, yes?

MR. TAMBE: Sure.

THE COURT: So, first, if it's okay, I'd like to just talk about the schedule for this week. And so, tomorrow is Thursday, February 16th, and we're going to be starting at 10:00. I have actually a Lehman hearing at 9:30, but you can come in and set up, and that won't take long.

I'm going to need to take the lunch hour at 12:30 to 1:30 tomorrow for a meeting, and then we'll resume. And then the related question, is the order of the witnesses, Mr. Send versus Mr. Sale, and that's connected to the discussion of the issues that Lehman raised this morning, which I'm not sure if you want to talk about off the record or not.

MR. TAMBE: I think that would be better.

THE COURT: Probably better, right. Okay. So, that's one thing we have to talk about. And then for Friday, February 17th, I have on your list, Mr. Tracey, Mr. Neumann, right?

MR. TRACEY: Correct, Your Honor. And he will be finished by 2:00, and we don't currently have another witness for the afternoon.

THE COURT: Okay.

MR. TRACEY: But we could probably scare one up.

THE COURT: So I had a note about 2:00. So, can

we start on 10:00 -- I'm sorry. I need to start at 10:00 on Friday because I think I have a 9:30 on Friday.

MR. TRACEY: I think we can get Mr. Neumann done --

THE COURT: Okay.

MR. TRACEY: -- from 10:00 to 10:00.

THE COURT: Okay. So, that's great. And then tomorrow, we can talk about what's going to happen after the week off.

All right. So, the two items that I have to discuss are I don't think that I know when response papers are coming in on the issue related to Mr. (indiscernible).

MS. SAWYER: (indiscernible)

THE COURT: Yes.

MS. SAWYER: Yes. I think we're going to speak to Hogan this evening about that and maybe not -- (indiscernible) the need for --

THE COURT: Okay.

MS. SAWYER: -- opposition papers. But I think it's --

THE COURT: Okay.

MS. SAWYER: -- too soon to promise anything.

THE COURT: So, that's on your --

MS. SAWYER: It's on our to-do list.

THE COURT: -- ball is in your court. Okay. And

then why don't we take up... Do you have anything else that we should talk about?

MR. TRACEY: I don't have any other items, Your Honor.

THE COURT: Okay. Then we can close out the record for today and why don't we meet in the conference room. Thanks. Thank you everyone for your ongoing patience.

(Whereupon these proceedings were concluded at 3:54 PM)

C E R T I F I C A T I O N

I, Sonya Ledanski Hyde, certified that the foregoing transcript is a true and accurate record of the proceedings.

Sonya Ledanski Hyde

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